Knowledge management and high performance

Bagorogoza, J.

Publication date:
2015

Document Version
Publisher's PDF, also known as Version of record

KNOWLEDGE MANAGEMENT AND HIGH PERFORMANCE

The Uganda Financial Institutions Model for HPO

KNOWLEDGE MANAGEMENT AND HIGH PERFORMANCE

The Uganda Financial Institutions Model for HPO

PROEFSCHRIFT

ter verkrijging van de graad van doctor
aan Tilburg University
op gezag van de rector magnificus
prof. dr. E.H.L. Aarts,
in het openbaar te verdedigen ten overstaan van een
door het college voor promoties aangewezen commissie
in de Ruth First zaal van de Universiteit
op woensdag 24 november 2015 om 10.15 uur

door
Janatti Kyogabiirwe Bagorogoza
geboren op 28 augustus 1962 te Mbarara, Uganda

Promotor:	Prof. dr. H.J. van den Herik
Copromotores:	Dr. A.A. de Waal, MBA Dr. B.A. Van de Walle
Beoordelingscommissie:	Prof. dr. ir. G. van Oortmerssen Prof. dr. E.O. Postma Prof. dr. M. van Reijsen Prof. dr. ir. J.G.L. Dietz Prof. dr. W.A. Naudé

The research reported in this thesis was sponsored by the Netherlands organisation for international cooperation in higher education (Nuffic), as part of the NFP programme, dossier no. CF 4650/2008.

SIKS Dissertations Series No. 2015-28.
The research reported in this thesis has been carried out under the auspices of SIKS, the Dutch Research School for Information and Knowledge Systems.

TiCC Ph.D. Series No. 42

ISBN 978-94-6295-300-0

Cover design:	Proefschriftmaken.nl || Uitgeverij BOXPress
Printed & Lay Out by:	Proefschriftmaken.nl || Uitgeverij BOXPress
Published by:	Uitgeverij BOXPress, 's-Hertogenbosch

Preface

The idea to write a PhD thesis emerged out of my ambition. I had encountered several employees in the financial institutions in Uganda, who were always hesitant to explain the many products offered by their institution. For an adequate explanation they needed to consult their managers. I realised that there was a missing link in the operations of the institutions. This needed to be addressed and improved. I dreamed of an improvement up to the level of a high performance organisation (HPO). A discussion with Dr. A.A. de Waal convinced me that HPO could be the way forward for financial institutions (FIs) in Uganda.

The value of knowledge management (KM) and its impact on high performance are a subject of debate and controversy in theory and practice. The knowledge-management behaviour has been found to be a key issue in performance improvement. Currently, we assume that knowledge obtains its value through adequate management. The better the management is, the better the knowledge. This idea may result into high performance. However, there is still a lack of coherent theoretical explanations on how the HPO framework influence high performance. This study used knowledge-based theories to develop and test a process-level model of the HPO framework, knowledge management, and high performance, which we call the UFI Model for HPO. We operationalised our model in the financial institutions in Uganda. (UFI means Uganda Financial Institutions.)

The findings of our research revealed that (1) effective knowledge management could lead to improved performance and (2) this performance could be sustained if managers adopted the UFI model for HPO. We establish that KM mediates the relationship between the HPO factors and high performance. Moreover, it was also established that the Uganda FIs are dominated by foreign-owned FIs. These FIs realised up to some *extent an effective knowledge management and had the environmental background and culture to aim at HPO. The thesis investigates the existing state of FIs performance in Uganda. Although all FIs practice some form of KM, the indigenous FIs do not have clear KM strategies. Here we see that KM practices have quite a low standard of operation and should be improved upon for the financial institutions to obtain a higher performance. In our study, we developed some guidelines (see below).

The thesis contains the following three contributions: (1) A new model called the UFI model for HPO is proposed for financial institutions operating in developing countries such as Uganda. As a direct consequence, (2) the study contributes to the existing literature on KM practices of financial institutions in developing countries, and (3) the study forms a fundament for future research in this field and in related fields. Although the three contributions have in themselves a theoretical nature, we emphasise that much practical fieldwork has been performed in the form of surveys and interviews. Their outcomes were our sources of inspiration for the UFI model. We even received one Best Paper Award

(published in International Academy of African Business and Development conference proceedings).

I would like to recognise the help of many people and institutions. First of all, I would like to thank my supervisors Professor dr. Jaap van den Herik, dr. André A. de Waal and dr. Bartel Van de Walle for the valuable guidance and encouragement they gave me. May God bless you and your families.

Second, I am grateful to the Netherlands organisation for international cooperation in higher education (Nuffic) for their sponsorship, which enabled me to undertake my PhD project. I also thank the management at the Makerere University Business School (MUBS), for giving me the opportunity to study. I do appreciate the support given by all my colleagues at MUBS. I should specifically mention Terry and Moses who encouraged me to apply to Maastricht school of Management (MsM).

Third, my sincere thanks go to all my friends and family members. To my husband David Bagorogoza and the children: Temple Daniel, Brian Alvin, Donald Davie, and Mark Grace. “Please, accept my sincere thanks for the unconditional support you have always given me throughout this PhD journey.” my parents Mr. and Mrs. Zavuga for offering me the opportunity to study as a girl child. Lastly, I would also like to acknowledge the staff of the research department at MsM, Patrick and Sandra for the effort they put in to help me through the trajectory. Then, I wish to acknowledge the support I received from the staff at Tilburg University more specifically Joke and Eva. Finally, I would like to acknowledge MsM and Tilburg University, in particular Tilburg center for Cognition and Communication (TiCC), and the Graduate School of Tilburg School of Humanities (TSH). Above all I would like to thank God who enabled everything and everybody. For additional Special Acknowledgement (see page 171).

Janatti Kyogabiirwe Bagorogoza
Maastricht, November, 2015.

Table of Contents

CHAPTER FOUR

CHAPTER FIVE

List of Abbreviations

ADB	African Development Bank
AMA	American Management Association
ATM	Automated Teller Machine
AVE	Average Variance Extracted
BoU	Bank of Uganda
CA	Competitive Advantage
CAQDAS	Computer Assisted Qualitative Data Analysis Software
CRB	Credit Reference Bureau
CMA	Capital Markets Authority
CSR	Corporate Social Responsibility
CVI	Content Validity Index
DC	Dynamic Capabilities
DFID	Department for International Development
EAT	Earnings After Tax
EBIT	Earnings before Income and Taxes
FFS	Formal Finance Sector
FI	Financial Institution
FIU	Financial Institutions in Uganda
FSD	Financial Sector Deepening
GCS	Global Competitive Surveys
GDP	Gross Domestic Product
GFI	Global Financial Inclusion Indicators
HP	High Performance
HPO	High Performance Organisation
HPWP	High Performance Work Practices
HRM	Human Resource Management
ICT	Information and Communication Technology
IFC	International Finance Corporation
IFRS	International Financial Reporting Standards
IFS	Informal Finance Sector
IMF	International Monetary Fund
IK	Indigenous Knowledge
IRA	Insurance Regulatory Authority
ITU	International Telecommunications Union
KA	Knowledge Acquisition
KBT	Knowledge-Based Theory
KD	Knowledge Dissemination
KM	Knowledge Management
KMO	Kaiser-Meyer-Olkin

KPI	Key Performance Indicators
MDI	Micro finance Deposit-taking Institution
MDG	Millennium Development Goals
MUBS	Makerere University Business School
MoFPED	Ministry of Finance, Planning and Economic Development
MTN	Mobile Telecom Network
NGOs	Non-Governmental Organisations
PCA	Principal Component Analysis
PLS	Partial List Squares
PMS	Performance Management System
PMT	Performance Monitoring Tools
RBV	Resource-Based View
ROA	Return on Assets
ROE	Return on Equity
ROI	Return on Investment
SCA	Sustained Competitive Advantage
SEM	Structural Equation Modelling
Shs	Shillings
SHRM	Strategic Human Resource Management
SMEs	Small and Medium Enterprises
SSA	Sub-Saharan Africa
SPSS	Statistical Package for Social Science
UBOS	Uganda Bureau of Statistics
UCB	Uganda Commercial Bank
UFI	Uganda Financial Institutions
UIBFS	Uganda Institute of Banking and Financial Services
URA	Uganda Revenue Authority
USE	Uganda Securities Exchange
UTL	Uganda Telecom limited
VAS	Value Added Services
WEF	World Economic Forum

List of Definitions

List of Figures

List of Tables

Chapter One

Introduction

1.0 Introduction

This thesis deals with the question of how knowledge management (KM) leads to the creation of value. When an organisation aims at achieving the highest possible value, the question then posed is: how will the organisation transform into a high performance organisation (HPO)? Up to the year 2000, the focus of KM research in the literature has been specifically on leadership (Blanchard, 2006; Srivastava et al., 2006; Lee et al., 2012), culture (Simons, 2008; Ho, 2009; Aydin and Ceylan, 2009), and resources (Lee and Sukoco, 2007; Zack et al., 2009; Huselid and Becker, 2011; Riveros and Tsai, 2011), as indicators of high performance and sustainable success. Clearly, many companies (or firms) were interested in ways to transform themselves into high performance organisations with sustainable success. In the last decade a change in the working process with respect to resources has taken place which has not gone unnoticed. For instance, Teece (2009) made the following remark: "it is now widely recognised that intra-firm factors are more important in explaining firm profitability than industry-level factors." In this respect, the research into factors of high performance has been driven by two developments: (1) the resource-based view of the firm (RBV) (see Lockett et al., 2009) and (2) the theory of dynamic capabilities (DC) (see Peteraf and Barney, 2003; Easterby-Smith et al., 2009; Teece, 2009; Helfat and Peteraf, 2009).

In general, the industry studies are better equipped in addressing the *broader* questions on high performance and sustainability seen from a theoretical as well as from a practical point of view. The reason is that the industry is positioned in an environment that has to deal with the full development line in which research is the starting point. If research is successful the development may be successful; a criterion for a successful development is the acceptance of the deliverable by the community. Along this line, important issues are: (1) KM strategies adopted by the manager, (2) the underlying processes, and (3) the related superior performance (cf. Wiig, 2004; Reychav and Weisberg, 2009). In this complex environment, our interests were in the economy and knowledge management; during the first investigations they broadened towards finances and services.

Our research takes a mixed methodological approach to investigate the relationship between the HPO framework, knowledge management, and HPOs, employing both quantitative and qualitative methods. This involves: (1) exploring and defining the nature of KM adopted by a financial institution (FI) within the financial sector, (2) analysing performance models that estimate the levels of productivity and profitability associated with the different KM processes or a combination of these processes, (3) studying existing HPOs and HPO frameworks, and (4) designing and testing a new (own) HPO framework (i.e., taken and adapted from the literature (Waal, 2008) and made fit for our research environment). Although in the recent past some research has been conducted in the area of high performance and its determinants among other organisations in developing countries (this happened in particular with respect to the role of KM), this study is relatively new since aiming at being

an HPO is not an intrinsic element of thinking by Ugandan companies and institutions. We will take Waal (2008)'s HPO framework as our basis for HPO. Our main aim is to give clear insights into achieving sustainable high performance by the FIs in Uganda by introducing the HPO framework and improving on the KM activities. For previous examinations in this direction, we refer to Bogner and Bansal (2007) and Johnson and Zarazua (2011). So far, only a few empirical works have been done to link KM and high performance at an organisational level (cf. Pillania, 2008).

From the extant literature we know that up to 2010 the internal and external contextual factors that influence and shape the way in which FIs pursue high performance have not been given much attention (see Kridan and Goulding, 2006; Sharma et al., 2007; Huselid and Becker, 2011). In the last four years attention to high performance has been increased considerably, but the relation with the developing countries was scarce. Similarly, the application and implementation of the HPO framework and how this relates to high performance at the institution level has not been adequately addressed for developing countries (see Molefe et al., 2011; Waal, 2012).

The main theoretical base for the study consists of theories taken from the mainstream KM studies and the literature on HPOs. The theories adopted are (1) resource-based views, (2) dynamic capabilities, and (3) knowledge-based studies. The theories provide two important conditions that underpin the performance of an institution. These are (a) the resources: the human resources (knowledge workers) of the FIs should provide services that meet the customers' needs (see Barney, 1995; Grant et al., 1996) and (b) the economic value: capturing part of the economic value should create a position for the institutions which are financially sound and sustainable (see Porter, 1990; Grant et al., 1996). The underlying key assumption in this study is that the HPO framework complemented by KM leads to high performance organisations and therefore to superior (high) performance (cf. Grant et al., 1996; Nonaka et al., 2006).

This introductory chapter unfolds as follows. In section 1.1the nature of high performance organisationsis briefly explained. It is followed by a brief introduction of knowledge management in section 1.2. Then we present the motivation for the study in section 1.3. Subsequently, we formulate the problem statement in section 1.4. The research questions as derived from the problem statement are articulated in section 1.5. The research objectives are stated in section 1.6. We briefly describe the research methodology used in the study in section 1.7. The significance of the research is described in section 1.8. The research outline is presented in section 1.9.

1.1 The Nature of High Performance Organisations

This section briefly deals with the nature of high performance organisations. It presents the concept of high performance in subsection 1.1.1, the high performance organisations in subsection 1.1.2, the characteristics of high performance organisations in subsection 1.1.3, the high performance organisation framework in subsection 1.1.4, and high performance in developing countries in subsection 1.1.5.

1.1.1 The Concept of High Performance

High performance entails the overall firm performance which is higher than the performance of the peer group (competitors, comparable organisations). High performance is measured, among others, by productivity, profitability, efficiency; customer satisfaction, market value, and competitive advantage (see Melville et al., 2004). Mostly, a weighted combination of these and other factors is taken as a measure. Therefore, high performance is relative, and the term is used to refer to companies that outperform others in a well-defined competition (cf. Newbold-Coco, 2006; Allen, 2009). The process of measuring the relative performance and determining the key drivers of the performance is difficult (Kirby, 2005; Jamrog et al., 2007), and this debate is still going on among scholars.

1.1.2 High Performance Organisations

The concept of high performance organisations has evolved from research into the link between strategic human resource management and organisational performance. Blanshard (2006, p.4) defined HPOs as "enterprises that produce outstanding results with the highest level of human satisfaction". There are many forms of high performance organisations, e.g., the ones described by Peters and Waterman (1982), Ahmad and Chopraa (2004), Lawler, 2007, and Waal (2010). Even though these studies refer to the same general phenomena, the use of different 'labels' has definitely added to the uncertainty of identifying the antecedents of high performance. The most recent concept dominating today's debate, which is related to these practices, is HPO as defined below. It is most commonly used in the circles of both academia and management practitioners and it is, therefore, adopted as such in our study. To substantiate our conceptualisation, we start with a definition of a high performance organisation as given by Waal (2012).

Definition 1.1 High performance organisation

"A high performance organisationis an organisation that achieves financial and non-financial results that are exceedingly better than those of its peer group over a period of time of five years or more, by focusing in a disciplined way on that which really matters to the organisation."(Waal, 2012)

The scope of the concept of HPO is potentially powerful, because HPOs are characterised by a nurturing, supportive, and positive work environment (see Kaliprasad, 2006). The HPO definition by Waal thus triggers our attention to two new concepts. Below we provide a definition of both of them, viz. organisational performance and business competitiveness.

Definition 1.2 Organisational performance

Organisational performance is defined as the actual output or results of an organisation as measured against its intended outputs (or goals and objectives). (Richard et al., 2009)

Definition 1.3 Business competitiveness

Business competitiveness is bringing organisational performance to a level where it can compete with its companion organisations. (cf. Berdine et al., 2008)

Business competitiveness is a concept with many appearances. For instance, business competitiveness can be seen as providing the same value as its competitors but at a lower price. On the other hand, it can also be seen as being able to charge higher prices by providing greater value through differentiation or through services.

1.1.3 The Characteristics of a High Performance Organisation

We note from the existing literature that several characteristics influence high performance (see Epstein, 2004; Holbeche, 2005; Rogers and Blenko, 2006; Waal, 2007; Vickers, Overbolt and Morrison, 2008; Allen, 2009; Posthuma, et al., 2013). The characteristics of a high performance organisation refer among others to distinguishing attributes which are unique to the industry (e.g., business award, business prize, medal of technology, and world leader of selling special products). Many characteristics are suggested by researchers and we highlight eight of them (to give an impression of what a characteristic is): (1) strong financial results (Brown and Eisenhardt, 1998); (2) satisfied customers and employees (O'Reilley and Pfeffer, 2000; Manzoni, 2004); (3) a high level of individual initiative (Foster and Kaplan, 2001; Holbeche, 2005); (4) productivity and innovation; (5) aligned performance measurement; (6) reward systems; (7) strong leadership (Epstein, 2004), and (8) redesigning the organisation (Allen, 2009). In practice, HPOs tend to share a set of these or other similar characteristics. When the characteristics are applied as a group within the environment of the firm, they may influence the organisation in such a manner that good management may develop a unique strategy which is able to achieve an HPO (see our framework in Chapter 3). In subsection 2.1.5 we mention 35 different characteristics. Below we provide a general definition of characteristics.

Definition 1.4 Characteristics

Characteristics are comparative and internally-reflective performance measures, which capture both financial measures (in this case, profit) and non-financial measures. (cf. Waal, 2011)

Sustaining high performance is difficult. First of all, no single input turns an organisation into an HPO. The most successful companies take a holistic approach, integrating many capabilities across the organisation. Yet the steps required to build a high-performance organisation are practical and measurable. The measurement takes place by using a number of factors (see Rogers and Blenko, 2006). In our terminology, a factor consists of several characteristics. A good insight into the connection between a factor and its characteristics is given in subsection 1.1.3. The choice for a set of factors leads to a model. There are many different models, each with their own specific set of factors.

Definition 1.5 Factor

A factor is a set of characteristics that by its combination enables us to measure partially the impact on a firm's performances. (cf. Rockart, 1979)

Although the models are different, the concepts (i.e., the factors and their characteristics) behind the models are similar. A point of attention is: the difference between a model and a framework (e.g., we model an organisation; we design a framework). We show the difference by providing two definitions.

Definition 1.6 Model

A model depicts how various managerial activities (e.g., developing strategies, manufacturing, marketing and selling, financial arrangements, human resources) work in an interconnected way to generate revenues and profits from a business idea. (cf. Porter, 1991)

Definition 1.7 Framework

A framework connects a set of ideas, principles, and rules in a harmonious manner to facilitate handling of situations. (cf. Balakrishnan et al., 2004)

An example of a model is Porter (1991)'s Five Forces model and an example of a framework is Waal's (2008, 2010) HPO framework. For a variety of reasons (see Chapter 3), this study will adopt Waal's (2008) framework and investigate its effect on the relationship between KM and HPO. In this study we will use the model of concepts as defined by Porter for the description of a detailed overview of the relationships between the activities. In general, the models are used for analysis and comparison (e.g., developing countries vs. developed

countries). In contrast, a framework in which concepts are involved, is used for (1) handling the activities in a given situation and (2) trying to measure the consequences of the activities (i.e., determining the results of the strategies followed).

1.1.4 The High Performance Organisation Framework

The high performance organisation (HPO) framework is a conceptual, scientifically validated structure that managers can use for deciding what to focus on in order to improve organisational performance and make it sustainable (Waal, 2012). Previous investigations suggested many different frameworks of high performance. However, none of these frameworks has been empirically tested in a developing country. After a five-year study, Waal (2006, 2008) proposed five factors with 35 characteristics. The definition of the five factors is based on extensive studies of organisations worldwide. The 35 characteristics can be influenced by managers. So, the managers are able to take targeted actions to start achieving superior results. The first two factors relate to people in terms of quality, both for the management and the employees, while the remaining three factors relate to their attitudes concerning the work and goal focus. The factors are: (1) management quality; (2) workforce quality; (3) long-term orientation; (4) continuous improvement, and (5) openness and action orientation (cf. Waal, 2008).

Today the factors for HPO are well known and have been formulated into the high performance organisation framework (HPO framework) by Waal (2010). The framework can be used by managers to identify which actions the successful companies undertook to become and stay HPO (Waal and Frijns, 2011). However, still little is known about the influence of KM on the relationship between the HPO framework and HPOs. Moreover, not many studies have used this framework in the context of Uganda, though there have been a few attempts in other African countries (e.g., Waal et al., 2009). It is important to have more studies that investigate the uncertainty of whether the identified factors will support and sustain HPO in the African context, and even more so in Uganda. The idea for such research had already been recommended by Manzoni (2004). The results of such research would be potentially valuable, as they will help managers in Uganda and other developing countries to focus on factors that improve their organisations' performance levels in the long run. We return later to Waal's work, but now we focus on developing countries.

1.1.5 High Performance in Developing Countries

The shift from performance to high performance can be seen as a necessary paradigm shift. Organisations will only survive in the future competitive environment if they become high performers or "world-class" organisations (see Meyer and Botha, 2004; Molefe et al., 2011). Institutions in developing countries are searching for the "how" to perform highly (cf. Muheirwe, 2003; Berg and Muheirwe, 2007; Pillania, 2008). Here we remark that up to now

most of the available studies have been conducted in public health sectors, public service, and non-governmental organisations; very few have been conducted in FIs.

Here we note that the financial sector is a vital element in any economy and has a significant impact on the efficiency and productivity of other sectors (cf. Beck and Hesse, 2007). Moreover, FIs greatly influence a country's economic growth, which makes it necessary for efforts to be put in the right activities to improve the performance and to achieve an increase in the gross domestic product (GDP) (cf. World Bank Report, 2009). As we see it, people in developing countries need high performing FIs through which they can easily have access to funds to finance their projects and businesses (cf. Gunawan, 2012). In this way, they may also improve on their incomes. As a direct consequence, there is need for the FIs to develop a KM strategy that can assist in the acquisition of knowledge, in the dissemination of knowledge, and in responding to knowledge, in such a way that it may sustain high performance.

From the literature we note that knowledge causes the most variability within an organisation's performance (Kalling, 2003; Darroch, 2005; Kridan and Goulding, 2006; Sigala and Chalkiti, 2007; Bogner and Bansal, 2007; King et al., 2008; Pillania, 2008; **Teece, 2009; Kruger and Johnson, 2011)**. However, we argue that most of the literature mentioned above was written in developed countries. In our view, it is therefore mostly applicable to these developed countries. Hence, it is not at all clear whether the statement that "knowledge causes the most variability within an organisational performance" also applies to developing countries. In most cases indigenous knowledge is used as the basis for local-level decision-making in sub-Saharan Africa (Priti, 2006). For us as researchers of this study, it is important to understand the KM practice in HPOs in the context of a developing country. Obviously, KM is a concept which is expected to support the HPO characteristics worldwide (see Buytendijk, 2006, Pillania, 2008; Waal 2010). So, we should find our own way in this study by investigating what happens with the work by Waal (2008, 2010) in which 35 characteristics are applied.

1.2 Knowledge Management

This section deals with knowledge management. In subsection 1.2.1, we discuss the concept of knowledge and we provide a definition of knowledge management. In subsection 1.2.2, we provide the benefits of KM in organisations. We provide an overview of KM in financial institutions in subsection 1.2.3.

1.2.1 The Concept of Knowledge

Knowledge is the number one, if not the fundamental aspect behind all enterprise activities. It determines the effectiveness and competitiveness of a company's operations and behaviour (see Wiig, 2004, pp.9; cited by Reychav and Welsberg, 2009). Knowledge,

as opposed to plain data and information, has been increasingly recognised as a primary source of competitive advantage over traditional factors of production, such as labour, raw materials, and financial capital (cf. Maddock et al., 2004; as cited by Sharma et al., 2007; Pfister and Eppler, 2012). There are many approaches to KM just as there are several different definitions (cf. (cf. Lloria, 2007; Mills, 2010; Gao and Riley, 2010). Indeed, we know that KM is difficult to define. Obviously, the particular context in which KM is used influences its definition as Han and Park (2009) observed. If a definition is given without any context, the definition may result in an erroneous action when being applied for the seemingly right reasons but in the wrong context (e.g., fire, flood, bankruptcy). The central elements in all KM definitions indicate that we may define KM in its plain form as follows.

Definition 1.8 Knowledge management

Knowledge management is the collection of processes that govern the creation, dissemination, and leveraging of knowledge to fulfil organisational objectives. (Pillania, 2008)

The reason for the choice of this definition is its relative simplicity versus other definitions like Nonaka and Takeuchi (1995), Pfeiffer and Sutton (1999), Ruggles and Holtshouse (1999), who initially defined KM as a process of applying a systematic approach to capture, structure, management, and dissemination of knowledge throughout the organisation in order to work more efficiently, reuse best practices, and reduce costly rework from project to project. Moreover, it is an open definition, neither prescriptive, nor limitative. Most other definitions are branch-bound, or at least closely related to a business branch. This definition has them all, albeit implicitly.

KM basically involves three processes: knowledge acquisition, knowledge dissemination, and responsiveness to knowledge. In the past, managers tended to base their competitive market strategy on utilising (1) product-based resources, (2) work processes, and (3) technology (see Reychav and Weisberg, 2009). Today, however, organisations view human capital as one of their most important resources, because employees possess organisational knowledge that can make or break an organisation's competitive market edge (see Hislop, 2013; Prajogo and McDermott, 2011; Wheelen and Hunger, 2013).

1.2.2 The Benefits of Knowledge Management

The benefits of KM range from: (1) faster access to knowledge, and (2) business process efficiency improvements via (a) higher staff motivation, (b) cost savings, and (c) increased profitability, to (3) new business opportunities with a shorter time to market, (4) better knowledge sharing, and (5) organised communities (Thomson and Walsham, 2004; Sujatha Das, 2007).However, many organisations are not taking full advantage of the KM possibilities in the field of performance, which may be attributed to ignorance and lack of full exploration

of KM and its capabilities by individuals and organisations. Therefore, further research should establish the relationships among the items mentioned above (see Priti, 2006; Zack and Singh, 2009).

For many organisations, achieving improved performance is not only dependent on the successful deployment of tangible assets and natural resources, but also on the effective management of knowledge (Lee and Sukoco, 2007; Mills and Smith,2010). Investments in KM continue to increase substantially year after year in FIs. Much of the overall spending by firms on KM initiatives is driven by strategic imperatives such as competitive advantage and business excellence. They mainly depend on the effective management of the knowledge resources (Lee and Sukoco, 2007; Chan and Chao, 2008; Martelo-Landroguez et al., 2014). One of the main reasons firms invest in KM is to build a knowledge capability that facilitates effective management and enables an adequate flow of information and knowledge within the firm.

1.2.3 Knowledge Management in Financial Institutions

In the last decade financial institutions in developing countries recognised that KM is a valuable resource (see Kridan and Goulding, 2006; Mafabi et al., 2013). Although KM has been a recognised area of study for more than thirty years in developed countries (cf. Bogner and Bansal, 2007), it has always adapted its aims to its direct environment. This means that emphasis was put on making the industrial and service processes in the developed world more efficient. Our idea is that the KM concept should have been transferred to developing countries to be used in their industries and their service organisations. Even in academic circles there was no ambition to broaden the scope of KM to developing countries. It was not until the study by Okunoye et al. (2003) when new insights found their way in KM. They posited that it was not until KM had matured and had become seen as almost essential for continued existence and survival of organisations that attention was paid to it in developing countries.

In the strategic management literature, a knowledge-based theory (KBT) of the firm has emerged (Nonaka and Tekeuchi, 1995; Cole, 1998). According to this perspective, knowledge is believed to be a strategic resource and a potential source of competitive advantage. In fact, organisations create, protect, and retain for their own use the outcomes that arise from utilising knowledge (see Teece, 1996; Okunoye et al., 2003; Squier and Snyman, 2004; Kruger and Johnson, 2011). Employees are explicitly involved in this behaviour, and rewarded according to their contribution to the collective effort of generating productive knowledge. So, knowledge becomes a financial asset not only for the service provider, but for the customer as well (cf. Chaminda et al., 2007). Therefore, it is practical that FIs in Uganda try to manage knowledge to improve their performance.

In Uganda 85 percent of the economy is informal and thus the knowledge economy has not yet been adopted. The Ugandan employees do not always understand that general profit comes by formal rules and not by informal business. Still it is difficult since the policy makers are concentrating on attaining the large goals that dominate the country, i.e., poverty alleviation and provision of basic necessities. A first step would be developing attention and interest for KM. Therefore, the concept of KM as presented in the literature by Western and Eastern researchers has to be re-engineered to fit into the African context; more precisely to fit into the Ugandan environment for organisations to achieve and sustain high performance.

Financial institutions in developed countries generate, mobilise, share, and apply knowledge in the provision of their attested services (cf. Huang, 2010). They combine knowledge and financial resources to solve complex development challenges in their society. The ability to do this gives them a competitive advantage over colleague institutions.We are sure thatthe applicability of Western techniques in a developing context such as empowering the managers with knowledge and expertise would help them provide greater intellectual leadership. Furthermore, studies by the African Development Bank (ADB) (2006-2008) show that KM without a development component is inadequate. Thus it is argued that the financial perspective can only be improved by mutual understanding, training, and exchange programme. It means that FIs should establish and entrench a knowledge culture within the bank and should enhance the operational effectiveness provided that they aim to achieve high performance through bank activities.

1.3 Motivation for the Study

Our motivation for this study is based on the observation that only a limited number of studies have attempted to examine empirically (1) the adoption of Western KM models and (2) the high performance practices of FIs in developing countries. There is an important research gap to address because the FIs play a major role in the economic growth of developing countries and in particular in Uganda. The motivation is also based on my own experience. During my preliminary study at Makerere University Business School (MUBS), the empirical tests proved that the theoretical KM models did not have much impact on business in practice. For instance, I saw that they did not work in practice, since the FIs in Uganda have high labour turnover with employees being recycled in the institutions. Still, I propose in this study that the use of appropriate KM practices is a means in which the FIs may improve their competitive position and may become strengthened to play a leading role globally. To achieve this aim, we should be successful in collecting the relevant data and in investigating the specific impact on the performance. Therefore, this study will consider specific processes of KM and, in particular, those that involve the human resources. Our focus will be on (1) knowledge acquisition, (2) knowledge dissemination, and (3) the responsiveness to knowledge.

To arrive at that position we start by acknowledging that there are characteristics which could influence the relationship between the HPO framework and high performance, such as information technology, structure, and performance culture. Despite the contribution of various studies and theories, so far (1) the influence of KM has not been empirically shown to be a (possible) mediator of the HPO framework and high performance and (2) the quantitative relationships between the HPO framework, KM, and high performance have been considered as elusive, particularly in the FIs. It is anticipated that the study will help to reduce this elusiveness by providing a model that is appropriate for high performance in Uganda's FIs and, possibly, in other developing countries as well.

1.4 Problem Statement

The financial sector in developing countries is facing tough competition in the era of privatisation, liberalisation, globalisation, and the recent financial crisis. Organisations are trying to find ways to survive and compete (cf. Pillania, 2008; World Bank, 2009; Huang et al., 2011). Uganda's FIs have not been an exception, with many of them undergoing major changes such as privatisation, mergers, acquisitions, and closure. Many of these changes happened in the past decade (cf. Ntayi, 2005; Beck and Hesse, 2007; Mugume, 2008; Kamukama et al., 2011).

In spite of extensive research advocating for KM as the means to improve organisational performance (Kridan, and Goulding, 2006; Watson and Hewett, 2006; Pillania, 2008; Nemani, 2010; Martins and Meyer, 2011), a few studies have attempted to investigate and explain how KM processes and practices actually enhance business performance (cf. Sigala and Chalkiti, 2007; Vorakulpipat and Rezgui, 2008; Saghali, 2011; Kruger and Johnson, 2011). Although most studies focus on analysing features, attributes, the business value of knowledge assets, and performances (cf. Kalling, 2003; Darroch, 2005; Kridan, and Goulding, 2006), no single study has yet attempted to explain the effect of Waal's (2008) HPO framework[1] and the corresponding set of specific practices through which knowledge is transformed into guidelines for a HPO. Clearly, empirical reaffirmations are lacking to link KM to high performance.

In addition, there is insufficient scientific discussion on HPO in developing countries (Ho, 2009; Waal and Frijns, 2011). Most of the conducted studies originate from the USA (e.g., Stadler, 2007; Mehrizi and Bontis, 2009), Europe, and Asia, where the contexts and the business environments are different. The current business environment which is characterised by continous technological advancements, competitiveness, globalisation, and environmental changes have made other parts of the world become increasingly important, as already observed by Shih et al. (2006), and therefore deserve our attention.

1 Waal's (2008) HPO framework henceforth referred to as an HPO framework in the study.

Furthermore, most of the studies do not satisfy the "criteria for good science" as given by Srnka and Koeszegi (2007). This is due to the fact that a large number of studies on HPO are from consultancy firms (e.g., Newbold-Coco, 2006; Allen, 2009; Accenture, 2009; Danenberg, 2010). Thus, their data may not have been collected in a systematic way. The other data is obtained from textbook chapters which may be based on research (sometimes not even that) (cf. Penrose, 1959; Peters and Waterman, 1982; Collins, 1994; Holbeche, 2005; Armstrong, 2009). But in the textbooks the data is arranged in such a way that they convincingly teach us the lesson "how we should do it", and not "why data science is so difficult." These observations make it difficult to generalise the literature findings, which may also make the research results less relevant to management practice in developing countries (cf. Webber, 2006; Palrecha, 2009). The omissions do raise an intellectual debate, the answers to which are awaited by management, scholars, practitioners, including top executives, and therefore an academic contribution to this process is sought in this research.

The study examines the extent to which KM can influence high performance in financial institutions in Uganda. Our aim is not only to investigate the current situation per se, but also to attempt to find methods of improvement for the future and offer concrete recommendations. Based on this aim we formulate our problem statement (PS) as follows.

Problem Statement:

To what extent can KM help financial institutions in Uganda to become high performance organisations?

As the reader may understand, we restrict our research to Uganda and will mention this in our conclusions again. The main concepts in our study are financial institutions, HPO framework, knowledge management, and high performance.

1.5 Seven Research Questions

To find answers to the problem statement we formulate the following seven research questions (RQs). They will guide our research and read as follows.

RQ1: What are the theories applicable to understanding KM practices and HPO in FIs?
RQ2: What is the existing level of performance of FIs in Uganda?
RQ3: What are the existing KM practices in FIs in Uganda?
RQ4: What is the relationship between the HPO framework and high performance in FIs in Uganda?
RQ5: What is the relationship between the HPO framework and KM in FIs in Uganda?
RQ6: What is the relationship between KM and high performance in FIs in Uganda?
RQ7: Does KM influence the relationship between the HPO framework and high performance in

FIs in Uganda, and if so in what manner?

The places where the RQs are addressed in the thesis are as follows.
RQ1 is answered by literature research (Chapter 3).
RQ2 and RQ3 are answered by Survey 1 and Survey 2 (Chapter 5).
RQ4 and RQ5 are answered by Survey 3 (Chapter 6).
RQ6 and RQ7 are answered by the results extracted from Survey 3 (Chapter 7).

Finally, we remark that the surveys are described in general in 1.7, and that we discuss the relevant methodological choices and the options taken, at the detailed beginning of the description of each of the surveys.

1.6 Eight Research Objectives

Eight research objectives are formulated, they read as follows.

1. To establish the extent to which the existing theories are applicable to understand high performance and KM in FIs in Uganda.
2. To establish the existing levels of performance in FIs in Uganda.
3. To establish the existing KM practices in FIs in Uganda.
4. To establish the relationship between the HPO framework and high performance in FIs in Uganda.
5. To establish the relationship between the HPO framework and KM in FIs in Uganda.
6. To establish the relationship between KM and high performance in FIs in Uganda.
7. To determine the influence of KM on the HPO framework and high performance.
8. To design a Uganda financial institutions (UFI) model for HPO, i.e., a model that can be used to support the FIs in Uganda to reach the HPO level.

1.7 Research Methodology

In this section we briefly discuss the research methodology, each chapter where a RQ is discussed will contain a more elaborate description of the methodology followed to anwer that RQ.

The thesis investigates the KM practices of FIs in Uganda with the aim of (1) proposing the UFI model for HPO and (2) endowing the model with best practices that policy makers and practitioners can use to improve their performance levels. Our research methodology consists of the following eight phases: (1) undertaking the literature search, (2) developing an UFI model for HPO, (3) developing specific research designs and the formulations of questionnaires, (4) performing surveys, (5) conducting interviews, (6) analysing the results, (7) determining the findings, and adjusting the model accordingly to the practical reality in Uganda, and (8) formulating conclusions and recommendations.

With respect to the problem statement (to what extent can KM help financial institutions in Uganda to become high performance institutions?) we reviewed the literature to arrive at our first findings. This was followed by Survey 1, which led to new findings. Out of the combined findings we then proposed the first design of the UFI model for HPO. Thereafter we focussed on identifying (1) the levels of high performance in organisations, (by means of Survey 2). With the help of Survey 3 we then (2) identified the KM practices used, (3) implemented and applied the UFI model for HPO, and (4) validated the UFI model. The methodology will help us to answer the research questions and the problem statement. In subsection 1.7.1 we discuss the research design, and the contents of the surveys, in subsection 1.7.2 the research strategy, and in subsection 1.7.3 the data collection methods.

1.7.1 Research Design

The study adopted a cross-sectional study design with a combination of both qualitative and quantitative research approaches. This is in line with good research practice in which social science researchers are increasingly advocating for methodological triangulation, that is, a combination of both qualitative and quantitative research methods which draw conclusions and make inferences from several data sources, using different methods, investigators, and theories (Ibeh, 2003; Rossman and Rallis, 2003; Creswell, 2008). Below we discuss the surveys.

The fieldwork of our research consists of three surveys, viz. Exploratory Survey 1, Exploratory Survey 2, and the Main Survey 3. For a proper distinction we will call them Survey 1, Survey 2, and Survey 3.

Survey 1 involved informal interviews with accountants (not taped, but notes were made and written material was handed over by the interviewees not recorded).The reason is that the interviews were meant as a stepping stone to create rapport and to develop a sense of understanding between the researcher and the accountants on interesting research items. The purpose of the informal interviews was to obtain some familiarity with the domain and their employees. Moreover, we wanted to hear their interpretation of the audited bank statements of the FIs. This information would help us in formulating the official questionnaire for Survey 2 and Survey 3. There are 28 FIs in Uganda. For the informal interviews we selected 10 FIs. The statements provided by the 10 selected accountants were analysed and the results are presented in three categories:net profits and productivity (Appendix H), and market shares (Appendix G). We will then extract the net profits ratios to come up with profitability levels and return on assets (ROA), from a sample of 10 FIs. These provided the basic knowledge for our next step in the research project (see also 5.3).

Survey 2: investigating the existence of HPO in FIs in Uganda. The survey deals with the organisational factors as given by Waal (2008). For this survey, Questionnaire 1 has been

developed (see Appendix B), which we will administer to employees of the 10 FIs. We will analyse the results and present them in Chapter 5.

Survey 3: combining the following three notions: the HPO characteristics, KM processes, and high performance. An appropriate combination of the three notions guided us to formulate Questionnaire 2 (see Appendix C). The questionnaire will be a pilot for testing the validity and reliability of the variables used in Questionnaire 2. We envisaged to administer the questionnaire to the employees of 28 FIs (the employees were diffferent from the ten originally interviewed employees). For Survey 3 we also interviewed a total of 16 managers. The results are presented in Chapter 6 (RQ 4,and RQ 5) and Chapter 7 (RQ 6 and RQ 7). Survey 3 took, in total, close to twelve months (from May 2011 to March 2012).

Below we provide some relevant information on Questionnaire 1, Questionnaire 2, as well as on the interviews that were held for Survey 3. The information is given to provide a proper insight into our research activities.

Questionnaire 1 (see Appendix B) was administered as part of Survey 1 to fifty respondents (as for responses we received fourty usable questionnaires) from the employees of the selected 10 FIs (see Chapter 4).

Questionnaire 2 (see Appendix C) was administered as part of Survey 3 to 300 employees of 28 FIs. We received 213 usable questionnaires (see Chapter 4).

The semi-structured interviews belonging to Survey 3 were conducted in sixteen different circumstances (see Chapter 4).

1.7.2 Research Strategy

In this subsection we discuss the selection of our participants for the study. The participants were selected from financial institutions (FIs) because they have a large knowledge base and are also competitive in nature. The study population was established using multiple sampling techniques, viz. (1) stratified random sampling for institutions, (2) purposeful random sampling for employees, and (3) snowball sampling for managers of FIs in Uganda. We used two criteria:

I. the FIs should have existed for five to ten years,
II. each FI is registered at the Bank of Uganda (BoU) as a bank.

This is in line with our definition of HPO (see subsection 1.2.2). The FIs are categorised in four tiers by the BoU: Commercial banks, Credit institutions, Micro-finance Deposit-taking Institutions (MDI), and member-owned Credit FIs. These tiers were considered as the

stratas, and two tiers were selected: Commercial banks and MDIs because they have the largest number of institutions. Twenty-eight (28) FIs were selected using the table of sample size determination (see subsection 4.3.2).

From the 28 FIs we solicited the participation of 28 managers, one from each FI, for an interview using the snowballing sampling technique (cf. Byrne, 2004). Since the respondents served at the managerial level, they were considered suitable for this study, i.e., for answering RQ3, as they were likely to be aware of their firm's KM capabilities. For answering RQ4 and RQ5 a total of 300 employees were selected.They were purposively selected depending on the number of employees employed by the institution. So, all in all, our sources of information for the study have the qualification of Manager, Accountant, or Employee of an FI.

1.7.3 Data Collection Methods

We employed three data collection methods, viz. (1) archival data sources, (2) semi-structured interviews, and (3) questionnaires. The audited financial reports of the FIs are regarded as the archival data source. They provided data for three high performance indicator variables: (1) profitability, (2) productivity, and (3) market share. The interviews helped us to explore the existing KM practices. The questionnaires were quite comprehensive. They provided information on Waal's (2008) HPO framework, KM processes, and high performance. Banks in the central districts of: Kampala, Wakiso, and Mukono were surveyed to gain a greater variation of responses over the large number of questions. This was of particular relevance to the primary data (see section 4.3).

1.8 Significance of the Research

The study will be of benefit to researchers and managers of organisations, scholars and researchers of management studies, and change agents. They will gain a deeper insight into the appreciation and understanding of the problems facing implementation and application of KM in FIs. The vital significance is that it will constructively contribute to the literature on KM and HPO in developing countries.

The importance of this research stems from the need to be able to handle the HPO framework and the influence of KM in order to achieve high performance. The study contributes to the existing literature by adding and examining the processes of acquisition, dissemination, and responsiveness to knowledge (subsection 1.8.1). It also provides an opportunity to improve the KM process (subsection 1.8.2), to increase the employees' and managers' productivity (subsection 1.8.3), and to increase the performance of financial institutions (subsection 1.8.4).

1.8.1 Contribution to High Performance Literature

The review of literature from different disciplines, such as organisational performance and strategic management, will advance the body of knowledge and stimulate further debates on the HPO framework in the creation and sustainability of high performance in developing countries. By examining how the unique circumstances of the Ugandan context influence high performance in theory and practice, it is hoped that the study will contribute to advancing knowledge about the relationship between the HPO framework and high performance as well as between KM and high performance in the context of a developing country.

1.8.2 Improvement of Organisational Performance

KM is assumed to improve organisational performance and business competitiveness. For this purpose, knowledge is primarily employed to increase competitiveness in the organisation. Obviously, organisational performance relies on knowledge. In general, it holds that the more knowledge leads to the better performances. Here we may add indigenous knowledge, which sub-saharan Africa has in abundance. Indigenous knowledge (for a definition see below), can in our opinion also be managed and utilised for the development towards an HPO.

Definition 1.9 Indigenous knowledge

Indigenous knowledge is the local knowledge that is unique to a given culture or society. (Sen and Khashmelmous, 2006)

Indigenous knowledge (IK) is the basis for local-level decision-making in agriculture, health care, food preparation, education, natural resource management, and a multitude of other activities in rural communities. It is close to human understanding (even in non-verbal interactions) and to the culture that guides the oral interaction. IK is also termed as "the knowledge that people in a given community have developed over time, and continue to develop. It is based on experience, often tested over centuries of use, adapted to local culture and environment, dynamic and changing" (cf. World Bank Group, 2003; Priti, 2006). According to Lwoga (2011) indigenous knowledge plays a large part in improving the organisational performance.

1.8.3 Increase of the Employees' and Manager's Productivity

The study is expected to help increase the performance of employees. KM can help individuals and groups to share important organisational insights, to reduce redundancy at work, avoid reinventing the wheel, reduce training time for new employees, retain intellectual capital as employee turnover in an organisation, and facilitate adaptation to changing environments and markets (cf. MacAdam and McCreedy, 2000; Thomson and Walsham, 2004; Prasetya and Masanori, 2010; Huselid and Becker, 2011). In the context of a financial institution,

the model to be developed is expected to contribute to organisational performance. In particular, a KM strategy of acquiring knowledge, encouraging knowledge dissemination, and responsiveness to knowledge is assumed to be beneficial to the productivity enhancement of employees in FIs in Uganda.

1.8.4 Increase of the Financial Institutions Performances

The results of the study will provide practitioners in FIs with insights into (1) the dynamics of the industry and (2) its future growth. This implies that employees will understand the possible range and depth of KM processes to adopt. So, the study will create awareness of the benefits of the HPO framework integration in FIs. Moreover, the UFI model for HPO has an important practical contribution to policy makers, viz. how to improve policies in support of sustained HPO. The improved policies may serve as inputs to the FIs when developing their best practices for enhancing performance towards HPO.

We expect HPOs to produce extraordinary results that extend beyond customer service and shareholder value on a sustainable basis. Since HPOs are centres of innovation in the industry in which they operate, we are likely to see innovations emerging. This will simultaneously provide a guide for organisations that aim to be HPOs and a road map for less performing organisations in Africa to improve their performance in a focussed way.

The benefit of transferring HPO knowledge is that organisations in developing countries can learn from the experiences and mistakes of organisations in the developed world. This may have the advantage of the process and the acceptance of the HPO framework to be implemented more quickly in the developing world than in the developed world, with fewer difficulties.

1.9 Research Outline

The main goals of this research are (1) to describe an appropriate application of the HPO framework that takes care of high performance in the FIs of Uganda and (2) to study the mediating role of KM. The researcher's approach to achieve both goals is as follows: (1) to understand why and how the KM processes influence the relation between the HPO framework and high performance in Uganda, and (2) to apply this understanding in achieving high performance. The chapters of the thesis are systematically arranged to realise these objectives and answer the RQs (see also sections 1.5 and 1.6). We summarise the outline of the thesis below.

Chapter 1: Introduction

In Chapter 1, we define HPO and KM and we highlight the benefits and the motivation for the study. The research is guided by the formulation of a problem statement and seven

research questions. The objectives are listed to inform the reader about the specific results aimed at. We then describe a methodology and the relevance of the study.

Chapter 2: Literature Review

In Chapter 2, we review the theoretical concepts in our research domain. Our objective is to identify relevant knowledge gaps in the relation between the HPO framework, KM, and HPO. Therefore, we investigate high performance, the HPO framework, KM and HPO instantiations in practice. We identify two knowledge gaps. Although there is sufficient literature on the concepts of the HPO framework and high performance in developed countries, (1) there is rather little scholarly work on the topics in developing countries (e.g., Uganda) so far, with exception of Waal's (2008) study, and (2) no study has seriously considered the influence of KM on the relation between the HPO framework and high performance. As a result of our literature review, we propose to develop KM as a mediator in the relationship between the HPO framework and high performance.

Chapter 3: Theoretical Foundations and the UFI Model for HPO

In Chapter 3, we consider various related theories to KM and HPO and analyse their relevance to our study. We answer RQ1 by proposing three theories to underpin our study: the resource-based view (RBV), the dynamic capabilities (DC), and the knowledge-based theory (KBT). We propose an UFI Model for HPO. Subsequently, we develop five claims and derive suggestions for guidance on how KM should be handled in practice, to improve the performance. The claims are tested in Chapter 6 and 7.

Chapter 4: Methodology

In chapter 4, our objective is to justify and present the relevant methodological choices that enable us to realise our objectives. We use a mixed methodology, where both qualitative and quantitative data are collected. Our objectives involve understanding and explaining relationships and applications. We include a philosophical perspective on our research and operationalise our concepts accordingly. The methodology is elaborated by dealing with our strategy, our design, sampling methods, data collection, and processing.

Chapter 5: Financial Institutions in Uganda

In Chapter 5, we carry out Survey 1 with an objective to understand in a better way the issues in our study, and to pilot-test our instruments. Then we carry out Survey 2. Most of the work in this chapter was earlier presented and published in the proceedings of the International Conference on International Business, 2012. Other publications appeared in the *Journal of Multidisciplinary Management Studies* 2(1), 2012 and the *Journal of Business.* 6(1), 2013. This chapter is written in such a way that it can be read and understood on its

own. In Chapter 5, we aim at answering RQ2 and RQ 3. We use the results of this chapter as a further basis for answering our research claims and practical implications in Chapter 7.

Chapter 6: Presentation and Analysis of Data

In Chapter 6, we expand the knowledge gathered over the previous chapters and to continue with Survey 3 testing the claims formulated in Chapter 3. We present the findings and analyse the data collected using Questionnaire 2. We carry out a detailed analysis to fill in the missing elements in the existing KM practices and in the existing strategies of the FIs. The results of the interviews with the managers are presented. We explore the manager's suggestions on how KM is practiced in FIs and their contribution to sustaining the HPO initiative in the context of developing countries. RQ4 andRQ5 are also answered in this chapter and we extend the results and learned insights to Chapter 7.

Chapter 7: The Effect of KM and UFI Model for HPO

In chapter 7, we analyse the data and present the findings of the influence of KM in the relation between the HPO framework and high performance. The final outcome gives the main contribution of the thesis, i.e., an adjusted UFI model for HPO. The results are relevant for RQ6 and RQ7.

Chapter 8: The Findings and Discussion

From the outcome, we establish that KM practices are important for the realisation and sustainability of the HPO status. From the UFI model for HPO, we note that improving the level of performance is determined by an improvement in the HPO frameworkand the KM processes (knowledge acquisition, knowledge dissemination, and responsiveness to knowledge). We then carry out an empirical verification, to test the correctness and usefulness of the UFI model for HPO which policy makers and practitioners can use to plan for effective implementation and application of the HPO framework.

Chapter 9: Conclusions, Recommendations, and Future Research

In Chapter 9, we give our conclusions by providing a summary of the answers of the seven research questions and the problem statement. We re-state our RQs in relation to the claims. We discuss five conclusions that may be drawn from the research findings and provide recommendations for FIs and policy makers. Possible areas for future research are also suggested in this chapter.

In table 1.1.we provide an overview of the relations between the chapters and the PS and RQs.

Table 1.1 Overview of the relationship between chapters and the PS and RQs.

Chapter PS/RQ	1	2	3	4	5	6	7	8	9
PS	✓	✓	✓			✓	✓		✓
RQ1	✓	✓	✓						✓
RQ2	✓				✓			✓	✓
RQ3	✓				✓			✓	✓
RQ4	✓					✓		✓	✓
RQ5	✓					✓		✓	✓
RQ6	✓						✓	✓	✓
RQ7	✓						✓	✓	✓

Chapter Two

Literature Review

2.0 Literature Review

One of the important characteristics of scholarly writing is making connections to and building upon the work by others. The current literature review aims at laying a solid foundation for our study. Therefore we focus on high performance in section 2.1 and on KM in section 2.2.

The chapter presents a detailed review of the past theoretical and empirical studies on high performance in general and knowledge management. Of course, we review in particular literature on financial institutions in developing countries to identify omissions for further empirical analysis. The literature review on high performance is mainly performed to serve the subsequent analysis of the facts found in the literature. We aim at arriving at findings that may serve as a basis for formulating our UFI model for HPO. The literature on KM is broad; we focus on the behavioural component of KM, i.e., the people as knowledge workers together with the KM processes that involve human beings.

The structure of the chapter is as follows: Section 2.1 deals with high performance organisations, section 2.2 with knowledge management, section 2.3 with knowledge management and high performance, section 2.4 with knowledge management and competitive advantage, and section 2.5 with knowledge management practice in financial institutions. The theoretical analysis is presented in section 2.6. Finally, the chapter is completed by a chapter conclusion in section 2.7.

2.1 High Performance

This section deals with high performance. We discuss the following items; the concept of high performance in subsection 2.1.1, high performance organisations in subsection 2.1.2, high performance organisation frameworks in subsection 2.1.3, high performance frameworks in practice in subsection 2.1.4, and five high performance organisation factors in subsection 2.1.5. The whole section is an elaboration of topics briefly discussed in section 1.1. We avoid duplication of information as much as possible.

2.1.1 The Concept of High Performance

Researchers approach the concept of high performance from different backgrounds and angles and with different goals. So, there is not yet a consistent definition which is uniformly agreed upon. High performance entails the overall firm performance which is by definition higher than the performance of the peer group (competitors, comparable organisations), and is measured by productivity, efficiency, customer satisfaction, profitability, market value, competitive advantage, and other factors (see Melville, Kraemer, and Gurbaxani, 2004). Below we provide our definition, which is applicable to our research.

Definition 2.1 High performance

High performance is the performance of a firm that achieves a rating for its relative quality of performing that is exceedingly better than those of its peer group.(adopted from Waal, 2012)

The definition consists of an interesting part worth discussing: High performance is relative, that is, performance can only be denoted as "high" when compared to a peer group comprised of competitors in the case of profit companies, or comparable organisations in the case of non-profits organisations or governmental agencies. According to Waal (2012) organisations which have done well for a period of only one, two or three years are not considered to be HPOs. High performance is characterised by sustainable good results over a prolonged period of time. So an HPO does not just perform well because it was lucky but because it has been doing the right thing. We remark that the qualification of high performance is related to (1) the composition of the peer group, (2) the definition of rating, i.e., is the rating a representation of a one-time performance or is it a performance over, e.g., two years, five years, or ten years, and (3) the contents of the comparison, i.e., "what really matters". For item (3) many classification criteria are possible**.**

In any case, we will state that a high performance means a superior performance with respect to a peer group. High performance is of great concern to organisations due to the fact that low performance results in having a low international competitiveness in at least five dimensions: price, quality, flexibility, delivery times, and after sales support (Kasarda and Rondnelli, 1998). Eventually, low performance could lead to a total collapse of the organisation. In contrast, a study by Godard (2004) established that the full adoption of the high performance paradigm may not yield outcomes that are considered to be more positive than the outcomes yielded by practices that have long been associated with good management. High performance is succeeding above and beyond standard norms; it is a sustained achievement of outcomes while good performance is a measurable scale of output that is above a focused level. Good performance is linked to optimising the system in achieving well deserved, desired output; high performance is in the sense of long term transformative outcomes of current efforts or inputs.

The implication is that good management is often contingent on a firm's environment. Let us be clear: good management is at most a necessary condition for high performance, it is not a sufficient condition. Typically, good management consists of (1) professional personnel practices (e.g., job ladders, employment security, grievance systems, formal training, and above-market pay), (2) group work organisation, (3) information sharing, and accommodative union relation policies. Moreover, it is accepted that this terminology is also potentially problematic and value laden. Pil and MacDuffie (1996, p. 423) as cited in Butler

et al. (2004) argue that to label new practices as 'high performance' can be misleading in the absence of clear empirical evidence of their actual link to any performance outcome**.**

2.1.2 High Performance Organisations

There are several definitions of the HPO concept since it emerged. The following three authors have defined it as "*the enterprises that produce outstanding results with the highest level of human satisfaction"* (Blanshard, 2006, p.4); **"***a company that is considered more successful than its competitors in areas such as profitability, customer service and strategy***"** (Castellano, 2010); and *"an organisation which achieves outstanding results by making each person a contributing partner to the business."* **(Allan, 2012)**

The notion of "high performance organisations" has been abridged and termed HPOs by many (e.g., Lawler et al., 1998; Sung and Ashton, 2005; Waal, 2007). Others speak of "high-involvement work practices" (e.g., Wood et al., 2001), "high commitment management" (Baird, 2002), "high involvement work systems" (Harmon et al., 2003), and "high-performance work systems" (e.g., Danford et al., 2004). Moreover, the terms "high performance system" and "high commitment system" often seem to be used interchangeably (see Sung and Ashton, 2005; Armstrong, 2009). All in all, a wide range of terms is used leading to widening the confusion. Though the studies involved are referring to the same general phenomena, the use of different 'labels' has definitely added to the uncertainty. However, there is some solution in sight which is almost universally accepted. The most recent concept dominating today's debate is HPO, it is most commonly used both in academic and practitioner circles. Therefore, it is adopted here for our study. Henceforth, we use HPO as a concept.

Common themes in the definitions given above were identified by Waal (2007). He formulated a definition based on them. "An HPO is an organisation that achieves financial results that are better than those of its peer group over a longer period of time, by being able to adapt well to changes and react to these quickly, by managing for the long term, by setting up an integrated and aligned management structure, by continuously improving its core capabilities, and by truly treating the employees as its main asset." This definition has been further refined into *"A high performance organisation is an organisation that achieves financial and non-financial results that are exceedingly better than those of its peer group over a period of time of five years or more, by focusing in a disciplined way on that which really matters to the organisation."*(Waal, 2012) (See Definition 1.1)

The following three publications are landmark books: *In Search of Excellence* by Peters and Waterman (1982), *Built to Last* by Collins and Porras (1994), and *Good to Great* by Collins (2001). They popularised our subject considerably and have stimulated significant research in HPO.Their interest is mainly centred (1) on identifying the characteristics of the HPOs

and (2) on understanding the process of becoming an HPO, particularly in a competitive environment.

HPOs are the role models of the organisational world. They represent real-world versions of a modern managerial ideal: the organisation which is so excellent in so many areas that it consistently outperforms most of its competitors for extended periods of time. Managers want to learn more about HPOs so they can apply those lessons to their own companies. Their aims are to ensure that their own organisations excel in their market places (Jamrog et al., 2007).

It is difficult to distinguish exactly why some organisations perform better than others. There is the problem of determining which organisations are high performers. Should analysts study only those that outperform others in their own industry? How long a time period should they assess? Which measures, financial or otherwise, are the best ones to use? Once analysts reconcile on answers to those questions, they then have to try to determine the reasons that a given organisation performs so well. According to the American Management Association (AMA) report (2007) organisations tend to be an intricate and unique entity. This makes it difficult to draw clear-cut lessons.

Despite these and related challenges, researchers have gone ahead to identify and study high-performance organisations over the years. As Kirby (2005) notes in the *Harvard Business Review*, management experts continue to build on one another's work to formulate more refined ideas about organisational performance. Our study will continue in that convention by building on the theoretical work of others, and will attempt to provide new insights into HPOs by validating the HPO framework in a developing country (Uganda).

2.1.3 High Performance Organisation Frameworks

This subsection presents a discussion of various frameworks that explain the elements of HPOs. To understand HPOs better we need to know the underlying models that have been proposed by researchers. Below, we briefly present what we found in the literature. From a thorough analysis of successful business practice, experts have derived various models with several characteristics of high performance (see Table 2.1).

Table 2.1 The HPO framework.

Authors	Characteristics
Waal (2008)	Management quality, workforce quality, long-term commitment, continous improvement and openness and action.
Jeston and Nelis (2008)	Discipline, persistence and commitment (confronting courage, confidence and skills) which are all behaviour components.
AMA (2007)	Strategy, leadership, and customer approaches, process and structure, and values and beliefs.
Kaliprasad (2006)	The market, the leader, and employees.
Rogers and Blenko (2006)	leadership, accountability, people, frontline execution, and performance culture.
Weber (2005)	Organisational structure and processes.
Carr (2004)	Processes, products, and services in such a way that a unique strategy is achieved in an innovative way.
Schermerhorn et al. (2004)	Employee involvement, self-directed work teams, integrated production technology, organisational learning, and total quality management.
Peckering and Brokaw (2003)	Quality of products and services, customer responsiveness (value), and financial performance.
Hunt and Orsborn (2003)	Employee involvement, self directing teams, integrated production technology, organisational learning, and total quality management.

Source: literature review

We note from the existing literature that several characteristics influence high performance as presented in Table 2.1. HPO frameworks are seen as embedded in the business process, which are constantly reviewed by the managers who are normally under pressure to improve the processes in search of what really matters to improve performance. In the HPO literature, there are differing views about the variables that may cause high performance. An extensive literature review of 290 studies dealing with HPO was performed by Waal (2008). He proposed a framework of five factors and thirty five characteristics that managers can focus on to improve the HPO's performance. This framework will be the starting point for our research. Below we provide three other viewpoints.

First, an employee, the leader, and the market are three elements that contribute to an HPO; the fundamental nature of HPO is to manage those elements for organisational effectiveness and sustained high performance (cf. Kaliprasad, 2007; Thomson, 2010). Investigating these elements will enhance the understanding of the phenomena on HPO. Second, AMA (2007) in agreement with Overholt et al. (2006) describes the key elements in an organisational context and relates them to high performance. This involves (five major elements of organisations: strategy, leadership, customer approaches, process and structure, and values and beliefs). Third, most prior studies have investigated HPO as a unidimensional construct. A common theme across the included studies is to investigate to what extent HPO is attainable and also the elements that have an impact on its sustainability.

Our study intends to consider Waal's (2008) five factors of HPO (for accurate argumentation of our choice we refer to subsection 2.1.5) to obtain a more comprehensive understanding

of the identified antecedents and their consequences. Of course, we will examine whether after 2008 new factors have arisen that have considerable influence on an organisation to be an HPO. All in all, our study considers high performance as the dependent variable and the financial, non-financial, and competitive advantage aspects as the major elements of prediction.

However, some researchers articulate a conceptual misunderstanding about the clarity of the HPO models. The following observation by Llyod and Payne (2004, p.13) is characteristic of the difficulties faced when designing a model: "not only is there no clear definition of the model, but there is also a fundamental lack of agreement about the specific practices it should and should not incorporate, as well as the meanings that are ascribed to those practices".

The conceptual confusion is detected by many authors (cf. Waal, 2010) when writing on advanced models for high performance. In an attempt to put the debate to an end, Farnham (2008) summed up the reservations about the high performance model by referring to (1) issues about the direction of the causality that are assumed to be in the blackbox, (2) the lack of consistency in practices that are applied in the model, (3) variations in the proxies used to measure high commitment HRM, and (4) variations in the proxies used to measure performance by relying on the self-report scores of human resource managers. These four reservations usefully modified the enthusiasm for the notion of high performance working practices (HPWPs) and emphasised that it is not an easy option. However, we refrain from providing a definite assessment and approval.

Yet, it is difficult to argue against the basic concept of the HPO model. We believe that there is sufficient evidence that it is effective to encourage its development (cf. Armstrong, 2009). In summary, we may state that a business which would like to position itself as an emerging HPO should emphasise the design of factors with their specific characteristics that produce sustainable results. So, the organisation should meet specific qualities typically attributed to HPOs in order to fit this model.

2.1.4 HPO frameworks in Practice

An HPO framework is mainly used as an operational replica for an organisation that prefers to see its results characterised by its productivity and competitiveness. While many theorists of HPO argue in favour of balancing different stakeholder needs and purposes (see Ellsworth, 2002), the establishment of HPO requires strong leadership from the top stakeholders, line managers, team leaders, employees, and their representatives who should as much as possible be involved through surveys, focus groups, and workshops (cf. Armstrong, 2009; Posthuma et al., 2013). HPOs aim at obtaining the best in people as a means of achieving sustainable high performance results (Thomson, 2010).

The definitive distinctiveness of an HPO is according to some researchers as follows. People are assets, because they are creative and they add value, fostering teamwork which is vital to HPOs. Therefore, with a proper training of users, technology will greatly enhance productivity to free up employees to focus on other important tasks and to focus on growth and development (Armstrong, 2009). This line of reasoning and thinking is consistent with the findings by Waal (2008), viz. (1) that the HPO environment thrives on knowledge and advancement, (2) that HPOs are dedicated to meeting and exceeding goals, and (3) that they will continue to aim for the above mentioned growth. In the end this will supplement and add value to the business.

Literature suggests that there have been several HPO frameworks in practice. This has been as a result of change in the industry and society as it continues to search for business excellence. The frameworks that have been practiced in recent years include; UK (Rogers and Blenko (2006), USA the AMA framework (Vickers, et al., 2007). The study described in this thesis is founded on the HPO framework, developed by (Waal, 2006, 2008, 2010), which is based on a descriptive review of 290 studies on excellence and high performance and a worldwide survey. The framework has been empirically validated in several countries, such as Vietnam (Waal et al. 2009), Nepal (Waal and Frijns, 2009, 2011), the UK (Waal et al., 2010), Peru (Waal and Escalante, 2011), the Netherlands (Waal and Meingast, 2011; Waal, 2012), Tanzania (Waal and Chachage, 2011), South Africa(Molefe et al., 2011), and Palestine (Waal and Sultan, 2012), it was considered that it might be also applicable in the Ugandan context to help Ugandan FIs identify the actions they need to take to become high performing.

In addition, in the research stream on globalisation there is an increasing number of observations that the transfer of management techniques from one country to another is leading to similar patterns of behaviour across these countries and thus to similar characteristics of importance for high performance (Bowman et al., 2000; Costigan et al., 2005). This also indicates that the HPO framework might be applicable in the Ugandan context. It is however, likely that the manner in which the HPO framework is applied and the resulting improvement suggestions do depend on the context, in this case the Ugandan culture, industry, organisational culture and the experiences and skills of the individuals executing the improvements (Hofstede, 1980).

According to Schermerhorn et al. (2004) HPOs face challenges of (1) internal integration, (2) redefinition of managerial roles, (3) leadership commitment, and (4) the influence of the external environment. Senior managers and leaders of the organisation have the responsibility to lead the transformation of the firm into an HPO with transparency. The transformations that take place in the rest of the organisation must also include self-reflection and change in the top management team. Role modelling assists top managers in

exerting influence on lower levels of the organisation to buy in the change (Thomson, 2010) towards adapting and effectively practicing the HPO framework.

2.1.5 Five High Performance Organisation Factors

In this subsection we review literature related to the high performance organisation factors. We start with remarking that previous investigations on high performance have suggested analogous ideas. Becker et al. (1998) remark that "organisations high performance work systems are highly distinctive and must be tailored carefully to each firm's individual situation to achieve optimum results". This was further echoed by Sung and Ashton (2005). Armstrong (2009) stated that ''it would be wrong to seek one magic list''. Clearly, it depends on the environment of the study.

The most important observation has been given by Waal (2010) who suggested the HPO framework. In itself proposing a new framework is nothing special, but the way he supported the arrangement of the contents in the framework was convincing, the more so since his opinion was evidenced by a plethora of empirical material that was unprecedented at that time. Nowadays, we live in the era of big data, but I would not be surprised if Waal would be the first who supersedes his own performance by new figures based on a big data collection. For completeness we reiterate Waal's (2008, 2010) work. An HPO framework has five factors with 35 characteristics that can be influenced by managers in such a way, that they are able to take targeted actions to start achieving superior results (Waal, 2008). Below, the factors as established by Waal are reproduced. They are nowadays worldwide an inherent part of all organisations that aim at the epithet on "high performance organisation". Waal's (2010) research involved an examination of over 290 publications on studiesperformed in the last 30 years in the area of high performance. The common themes established were tested in a worldwide survey of over 1400 profit, non-profit, and governmental organisations. The research yielded 5 factors with 35 characteristics which have the most impact on high performance. Thus, together they can be coined as an HPO framework. The developed HPO framework contains characteristics that potentially are applicable in various settings and contexts (Waal, 2010).

Out of each of the 290 reviewed publications, those elements were extracted that the authors regarded as essential for becoming an HPO. Because authors used different terminologies, the identified elements were grouped into categories which constituted possible HPO characteristics. For each of the possible HPO characteristics the'weighted importance' was calculated, i.e., the number of times that it occurred in the publications. Finally, the possible HPO characteristics with the highest weighted importance were included in an HPO questionnaire which was administered worldwide and which encompassed more than 3200 respondents. In this questionnaire the respondents had to grade how well they thought their organisations were performing with respect to the HPO characteristics

(on a scale of 1 to 10) and also what their organisational results were compared to their peer group. The competitive performance was calculated using two formulas: (1) Relative Performance (RP) – the performance of the organisation compared to the performance of its peer group: RP = 1 – ([RPT - RPW] / [RPT]), with RPT being the total number of peers and RPW being the number of peers with worse performances; (2) Historic Performance (HP) – the performance of the organisation over the past three to five years compared to the performance of its peers during that time period (possible answers: worse, the same, or better). These subjective measures of organisational performance are scientifically proven indicators of real performance (cf. Glaister and Buckley, 1998; Dawes, 1999; Devinney, Richard, Yip and Johnson, 2005).

By performing a non-parametric Mann-Whitney test, 35 characteristics which had the strongest correlation with organisational performance were extracted and identified as the HPO characteristics. The correlation was as expected: the high-performing organisations scored higher on the 35 HPO characteristics than the low-performing organisations did. This means that organisations which pay more attention to these 35 characteristics achieve better results than their peers, in every industry, sector and country in the world. Conversely, organisations which score low on the characteristics rank performance-wise at the bottom of their industry. After the Mann-Whitney test, a principal component analysis with oblimin rotation of the 35 characteristics was performed, which resulted in five distinct HPO factors.

Below we describe the five factors of the HPO framework and list the 35 characteristics that belong to the five factors. For further details we refer to Waal (2008).

HPO factor 1: Management Quality

The first factor is management quality. It is characterised by managers who have an effective, confident, and strong management style and are trusted by all organisational members. Management quality primarily focusses on leaders, as being sound role models who nurture and inspire trust, respect, and enthusiasm, and are performance oriented both in their ability to make decisions and to execute them. Honesty and integrity was found by Selvarajah et al. (1995, 2007) as the most important measure of excellence in leadership and personal quality of a leader among the Asian and Chinese organisations. It was further emphasised by Rogers and Blenko (2006) that HPOs were differentiated from less performing ones by their ability to implement repeatedly their decisions sucessfully.

The eleven characteristics of the HPO factor Management Quality are: *the manager*

1. is trusted by organisational members,
2. has integrity,
3. is a role model for organisational members,

4. applies fast decision making,
5. applies fast action taking,
6. coaches organisational members to achieve better results,
7. focusses on achieving results,
8. is effective,
9. applies strong leadership,
10. (10) is confident, and
11. (11) is decisive with regard to non-performers.

HPO factor 2: Workforce Quality

The second factor isworkforcequality. It is characterised by a diverse and complementary management team and workforce, which are flexible and resilient. The organisation must not only have good people who are energised and focussed on achieving extraordinary performances but they must be able to update continuously their skill levels. The AMA (2007) identified lack of skilled and talented employees as hindering a firm's competitiveness. Further, they indicated that retaining good employees was also a challenge. Murphy and Thomas (2009) argues that the organisation must have a pipeline of future leaders to achieve sustained performance. The pipeline of leaders must also be equipped to learn from experience that shapes and refines a leader.

The four characteristics of the HPO factor Workforce Quality are: *an employee*

1. wants to be held responsible for their results,
2. wants to be inspired to accomplish extraordinary results,
3. is trained to be resilient and flexible, and
4. is diverse and complementary.

HPO factor 3: Long-Term Orientation

The third factor is long-term orientation. It is characterised by commitment. Commitment is far more important than short-term gain, and extends long-term commitment to all stakeholders of the organisation. Long-term commitment ensures that the organisation maintains mutually beneficial enduring long-term relationships and partnership with stakeholders and is socially responsible. An HPO must anticipate and proactively respond to market changes to remain relevant and competitive and meet customer expectations.

The six characteristics of the HPO factor Long-Term Commitment are: *the organisation*

1. is a secure workplace for organisational members,
2. maintains good and long-term relationships with all stakeholders,
3. is aimed at servicing the customers as best as possible,

4. grows through partnerships with suppliers and/or customers,
5. is equipped with management that has been with the company for a long time, and
6. has new management that is promoted from within the organisation.

HPO factor 4: Continuous Improvement and Renewal

The fourth factor is continuous improvement. It is characterised by a strategy that sets the organisation apart from its peer group, and structures its processes, products, and services in such a way that the unique strategy is achieved in an innovative way. The organisation continuously innovates products, processes, and services thereby permanently creating new sources of competitive advantage by rapidly developing new products and services to respond to market changes. It also masters its core competencies and is an innovator in them by deciding and sticking to what the company does best, keeping core competencies inside the firm and outsourcing non-core competencies (Waal, 2008).

The eight characteristics of the HPO factor Continuous Improvement and renewal are: *the organisation*

1. has adopted a strategy that clearly sets it apart from other organisations,
2. has processes that are continuously improved,
3. has processes that are continuously simplified,
4. has processes that are continuously aligned,
5. receives explicit reports on what matters to the organisation's performance,
6. has both financial and non-financial information reported to organisational members,
7. continuously innovates its core competencies, and
8. continuously innovates its products, processes, and services.

HPO factor 5: Openness and Action Orientation

The fifth factor is openness and action orientation. It is characterised by an open culture that focusses on using this openness to take dedicated actions to achieve results. Openness and action orientation encourage dialogue and risk taking in an organisation; they are essential for creating renewal and innovativeness. Openness also fosters innovation by improving the flow and frequency of information implying that promising ideas in R & D, product development, strategy, and marketing are aired and refined sooner and less promising ones are decided on faster (Swaminathan, 2008).

The six characteristics of the HPO factor Openness and Action Orientation are: *the management of the organisation*

1. frequently engages in dialogue with employees,
2. allows mistakes to be made,

3. welcomes change,
4. spends much time on communication, knowledge exchange, and learning,
5. is involved in important processes, and
6. is performance driven.

In summary, the 5 factors and their 35 characteristics may guide the managers as to which actions they need to take to lead their organisations to superior results. Therefore, our study intends to try to establish whether the characteristics already identified could be applied in the financial institutions in the Ugandan context.

Four important differences of Waal's study with other HPO studies are as follows: (1) other researchers make a selection based on financial parameters of good or excellent organisations in a specific sector and then compare them against less well performing organisations. The weakness in this is that the initial selection brings an element of chance; (2) many researchers give scanty information about their approach, leaving us in doubt about what they did and how trustworthy their results are; (3) a large number of these studies have not been replicated as is the proper procedure with scientifically based research; (4) many studies focus on the Western world, e.g., USA and Europe, and ignore Asia and the developing countries while claiming universal applicability. We reiterate that Waal's (2008, 2010, 2012) successive contributions in the sub domain of high performance organisation factors are of outstanding quality. Therefore our choice for Waal's HPO framework is beyond any doubt.

2.2 Knowledge Management

In this section we consider KM as a strategy that can enhance (1) the financial institutions, (2) competitive advantage, and (3) a sustained high performance. The section explains in subsection 2.2.1 why knowledge is required, in subsection 2.2.2 why knowledge management is supportive, in subsection 2.2.3 which knowledge management models are available, and in subsection 2.2.4 how knowledge management models operate in practice.

2.2.1 Knowledge

There are many philosophical discussions on the concept of knowledge. We do not aim to add something to these discussions because what they offer is more than sufficient for our research. Below we explain what we consider to be knowledge. Knowledge is information within a context (cf. van den Herik, 1988; Gao and Riley, 2010). It is one of a firm's most valuable assets because it embodies best practices, routines, lessons learned, problem solving methods, and creative processes that are often difficult to replicate (cf. Grant, 1996; Liebowitz and Wright, 1999; Renzel, 2008).The concept knowledge as defined above has become a financial asset not only for the service provider, but for the customer as well (cf.

Chaminda et al., 2007). To the best of our knowledge, these concepts are combined in the following definition.

Definition 2.2 Knowledge

Knowledge is a mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. (Davenport and Prusak, 2000)

For many researchers the prevailing question is: why is knowledge required? Knowledge for its own sake does not help an organisation unless it turns into action, e.g., to add value, give competitive edge, create new opportunities, and improve profit organisations, teams, and individuals. Knowledge is the capacity for effective action. The profit organisations, teams, and individuals have to make a real change in the way they see and do things.

To deal adequately with knowledge (or to manage knowledge) "is to identify, manage, and value items that the organisation knows or could know: skills and experience of people, archives, documents, relations with clients, suppliers and other persons and materials often contained in electronic databases" (cf. Davenport and Prusak, 2000). Knowledge (even when it is explicit rather than tacit) is fluid and this unique feature makes it difficult to quantify in conventional financial management and thus to justify its value in metrics form (see Sharma et al., 2007).

2.2.2 Knowledge Management

KM is a concept that is studied from different angles and defined on more than one level (individual, organisation, industry, society). The concept came into use in the 1950s (see Penrose, 1959), and has acquired different meanings over time, just like knowledge itself. KM is difficult to define (see, e.g., Earl, 2001; Lloria, 2007); the particular context in which KM is used influences its definition. We define *knowledge management as the collection of processes that govern the creation, dissemination, and leveraging of knowledge to fulfil organisational objectives.* (Pillania, 2008) (See Definition 1.1)

Below we focus on the following five elements of KM: (1) the organisational importance, (2) the strategy, (3) the ongoing process, (4) a business philosophy, and (5) the knowledge strategy by an enterprise.

1. The organisational importance of KM is best described by Bailey and Clarke's (2000) definition of KM. They defined KM as "how managers can generate, communicate, and exploit knowledge (usable ideas) for personal and organisational benefit". Their definition highlights the organisational importance of KM, as well as its relevance for individual managerial action.

2. The strategy aims at organisational benefits. It means improving the effectiveness of the organisation, the operational processes, and the change management, thus ensuring that the KM focus is current. Sometimes, there are also personal benefits. It means that the individual manager is able to identify 'what' is in it for him to adopt a KM perspective.

3. The ongoing process may benefit from KM initiatives. They enhance performance through the identification, capture, validation, and transfer of knowledge (Casselman and Samson, 2007). KM basically involves three things: knowledge creation/acquisition, knowledge dissemination, and responsiveness to knowledge/implementation. Raghu and Vinze (2007) defined the core of knowledge through business processes of storage and retrieval, sharing, and synthesis.

4. The business philosophy given by Gurteen (2010) is as follows: "Knowledge management is a business philosophy. It is an emerging set of principles, processes, organisational structures, and technology applications that help people share and leverage their knowledge to meet their business objective." This puts focus and responsibility on the individual (i.e., the knowledge worker) and on the holistic nature of KM. Also, critically, it is about meeting business objectives. KM is not an end in itself. It is fundamentally about sharing knowledge and putting that knowledge to use.

5. The knowledge strategy by an enterprise is discussed starting from a business philosophy. Green (2006) insightfully suggests that "to define and manage knowledge, it must be known within the context of the business enterprise, what is to be done with them" echoing Stewart's (1999) earlier adage for measuring and deriving value from knowledge. This, in essence, is known as the knowledge strategy of the enterprise. To increase the probability of adding value, successful business companies articulate the link between the strategy of their enterprise and what its workforce needs to know, share, and learn to execute the strategy (cf. Green, 2006).

Here we remark that the five elements in their combination aim at the identification of the desired future state of the company. Strategy in combination with (1) specific objectives to be obtained, and (2) the action necessary to achieve the objective, ideally includes all areas on which major strategic discussions take place, such as markets, suppliers, human resources, competitive advantage, business positioning, critical success factors, and value. However, Zack (2003), in an empirical study of knowledge strategies, mentioned a fairly common cause for poor performance, viz. a business organisation that does not know when a value was being created and that did not organise themselves and their partners to exploit the value continuously in the market place.

Below we discuss two related topics, viz. (a) the need for KM and (b) the benefits of KM.

(a) The Need for Knowledge Management

FIs need to manage knowledge because KM makes the most of the organisation's collective knowledge and the expertise of its employees and business partners (Ribeiro, 2009). Considerable research has suggested that KM is a critical factor for creating new technologies and products (e.g., Nonaka and Tekeuchi, 1995; Argote et al., 2000). King et al. (2008) in agreement with Knogh et al. (2002) highlight the impact of KM on a firm's organisational performance. They suggest that organisational performance can be improved when employees communicate by sharing and utilising best practices, lessons learned, experiences, insights, as well as by creating new knowledge.

According to Koen et al. (2009), knowledge resources are shared in the structures of the organisation allowing individuals to communicate more effectively. As knowledge is taking on a key business role, a growing number of firms are expecting that KM should be implemented in order to transform corporate knowledge into a competitive advantage (Ribeiro, 2006). Therefore, (1) enabling corporate knowledge to be captured and shared and (2) finding ways to use this knowledge to enhance the efficiency and effectiveness of a finance institution are two key challenges to developing countries. Therefore, we argue that KM is an extremely important need for every developing country.

In particular, developing countries have an extensive base of widely available knowledge, which is indigenous knowledge (IK). This knowledge is mainly acquired and shared through local sources compared to formal sources (see Akullo et al., 2007). It is a locally owned and managed resource. Indigenous knowledge is predominantly tacit and embedded in practices and experiences of the local people. Africa has an abundance of indigenous knowledge, which can be managed and utilised for African development. We argue that FIs need to learn from local communities in which they operate to enrich the development process towards HPO. As stated in subsection 1.8.2, IK is the basis for local-level decision-making in finances, agriculture, health care, food preparation, education, natural resource management, and a host of other activities in rural communities (Lwoga, 2011).

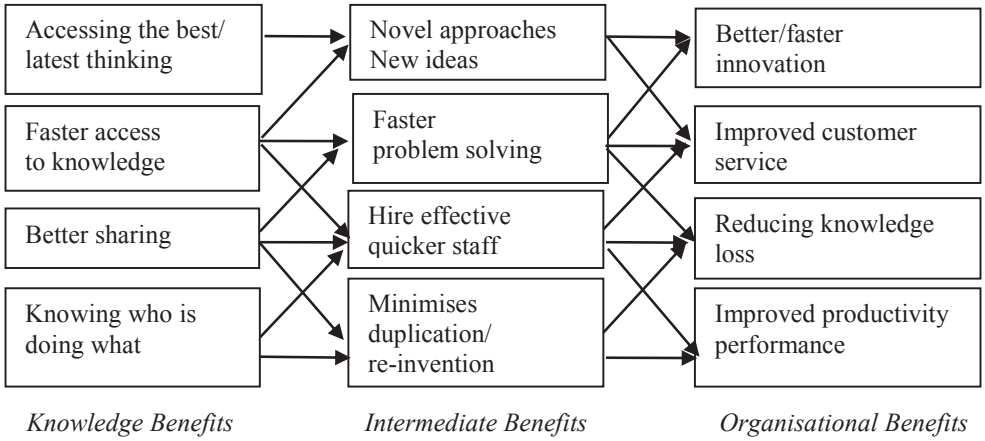
According to Gertjan van Stam (2014) there are different ways to look at the African context: from an indigenous perspective (from the local context), and from an extraneous perspective (from an external context, for instance from a Western context). Much of the knowledge is stored in *orality*, not in textuality, often kept by gatekeepers whose livelihood depends on this knowledge. Gatekeepers are people authorised or initiated to know. Knowledge is seldom based upon textual discussions, and is therefore inherently difficult to access and reference from an academic perspective. This representation and content of knowledge challenges a classical (Western) logic and paradigm that regards knowledge to be *absolutistic*. In sub

Saharan Africa the traditional practices is basically rooted in Ubuntu- an African philosophy that places emphasis on being human through other people' Mugumbate & Nyanguru 2013:82). As an African philosophy, *ubuntu* gives an understanding of Africans as human beings in relation to the rest of the world. In this case, an action is deemed right or wrong based on how it is related to corporate existence. This philosophy is considered as the spirit of African transformation but it is subject to further research therefore, we did not pay attention to such dimensions.

(b) Benefits of Knowledge Management

Several scholars (e.g., MacAdam and McCreedy, 2000; Thomson and Walsham, 2004; AlAmmary and Fung, 2008) suggest a number of benefits why KM has gained strategic significance today. Ali and Ahmad in agreement with Skyrme (2001) hint that benefits of KM can range from faster access to knowledge and better knowledge sharing via cost savings and increased profitability to a shorter time-to-market for new business opportunities. Employees can have easy access to the organisation-based documented facts, sources of information, and solutions. The relation between KM and their benefits is quite complex as can be seen from the areas mentioned below. Nevertheless, it is necessary to obtain adequate insight into that relation. We follow Skyrme (2001) by distinguishing three types of benefit, viz. (1) knowledge benefits, (2) intermediate benefits, and (3) organisational benefits (see Figure 2.1).

Figure 2.1 Three types of KM benefits.



Adopted from Skyrme (2001).

Below we briefly analyse the complexities of Figure 2.1.

1. Knowledge benefits; it is possible to track the predicted savings of time by investigating the four sources: (1) accessing the best and latest thinking, (2)faster access to knowledge, (3) better knowledge sharing, and (4) by knowing who is doing what. The sources of knowledge benefits are connected to their results indicated by arrows. Each source has at most three benefits.

2. Intermediate benefits; the manager will face (1) novel approaches and new ideas, (2) faster problem solving, (3) hire effective and quicker staff, and (4) minimise duplication and re-invention of services. The intermediate benefits are to be seen as sources for the organisational benefits. They are connected by arrows. Each source has at most three benefits.

3. Organisational benefits; the organisation will have (1) better and faster innovations, (2) improved customer service, (3) reduced knowledge loss, and (4) improved productivity performance.

It is quite common to have four or even five classes of benefits instead of only three. For example, organisational benefits can be divided into two classes, one is internal benefits and the other one is customer or market-related benefits. The classification is dependent on the target population.

In a related argument Sujatha Das (2007) notes that careful application of knowledge and other assets can result in better decisions, particularly, at the working level. Here, we remark that it is not the decisions made by strategists at the top that make or break a company, but the summed total of the day-to-day decisions made at the front lines of an organisation. Better decisions are achieved by spending less time on information gathering and more on the creative process. Decision-support systems help with the analysis, but are still driven by the ability to find relevant information. Appropriate knowledge directs the tools to (1) increase relevant information access, (2) facilitate collaboration and knowledge sharing, (3) retain institutional knowledge, (4) overcome organisational and geographical boundaries, and (5) shorten the cycle time. This results in (1) lower cost of doing business, (2) higher quality products, (3) decisions and recommendations, (4) increased productivity, and (5) more time for analysing versus data collection (Sujatha, 2007). Employees can have access to the organisation-based documented facts, sources of information, and solutions. One of the most important benefits of KM is to avoid repeating mistakes already made by others and reducing duplication of work (Payne & Sheehan, 2004).

Despite all the advantages of KM found in the literature, it is also important to note that it does not operate in isolation, separated from the rest of the organisation. Therefore, a better understanding of the critical issues that can facilitate or hinder successful KM is needed (Cardoso et al., 2012). We argue that if FIs can understand these factors; they will be better prepared to pursue the opportunities and benefits opened by KM. As suggested by Wong (2005) those factors can be understood as critical areas of management planning and action that should be addressed in order to achieve an HPO status. The critical factors and critical areas are further discussed in subsection 2.1.4.

2.2.3 Knowledge Management Models

Various KM models (see definition 1.5) have been presented in the literature. These models identify the different stages in which KM is implemented in practice. A few models of KM have dominated the debate, as emphasised by Lee et al. (2005). They stated that life-cycle models can be used to organise one's thinking about KM in an organisational environment. Admittedly, many authors have proposed KM models that outline the key aspects and processes of KM in an organisational-based environment (Davenport and Prusak, 2000; Lee et al., 2005; Park and Kim, 2006; Lina et al., 2007; King et al., 2008; Aflame et al., 2011). In Table 2.2 we present KM life-cycle models that are useful in analysing and in examining KM systems in financial institutions.

Table 2.2 Knowledge management life-cycle models.

Authors	Knowledge Activity
Allameh et al. (2011)	Creation, capture, organisation, storage, dissemination, and application.
Sun (2010)	Acquisition, creation, utilisation, and sharing.
Pillania (2008)	Creation, dissemination, and implementation.
King et al. (2008)	Creation or the acquisition, refinement (selecting, filtering, purifying and optimizing knowledge for inclusion in various storage media).
Yang, 2008; Van Zolingen et al. (2001).	Acquiring, codifying, disseminating, developing, and applying knowledge.
Raghu and Vinze (2007)	Storage and retrieval, sharing and synthesis.
Lina et al. (2007)	Knowledge clustering, enlarging, exchanging, and initiating.
Park and Kim (2006)	Acquisition and utilisation.
Darroch (2005)	Acquisition, dissemination, and responsiveness.
Lee et al. (2005)	Creation, accumulation, sharing, utilisation, and internalisation.
Freeze and Robles (2005)	Generating, codification, and transfer.
Alavi and Leidner (2001)	Capture, storage, search /retrieval, and transfer.
Davenport and Prusak (1998)	Generating, codification, and transfer.
Nonaka and Tekeuchi (1995)	Captured, codified, and shared.

Sources: *Literature review*; (Lee et al., 2005; King et al., 2008; own research)

Knowledge processes are seen as embedded in the business process. In the KM literature, there are differing views about the knowledge life cycle or a defined set of KM processes.

However, our literature review reveals three main generic knowledge processes, encompassing a large portion of KM activities, viz. acquisition, dissemination, and responsiveness to knowledge (Origin: Darroch, 2005). This will be our starting point for KM processes. Below we provide three other view points for reason of comparison.

First, people and technology are two elements that contribute to knowledge processes; the essence of KM is to manage those components for organisational effectiveness (Ali and Ahmad, 2006; Nemani and Creason, 2009). These processes will enhance the understanding of the phenomena examined by the study.

Second, King et al. (2008) describe the key aspects in an organisational context and relate them to organisational performance. This involves the creation or acquisition and the refinement of knowledge, i.e., selecting, filtering, purifying, and optimizing knowledge for inclusion in various storage media. We compress these to (1) storing knowledge in parts with a wide organisational impact and (2) the utilisation and application of knowledge (it may also be embedded in the systems, products, and relationships of the organisation).

Third, most prior studies have investigated KM as a unidimensional construct. A common theme across the included studies is to investigate to what extent KM is valuable and has impact. Whatever the case, this study intends to consider multiple dimensions of KM to obtain a more comprehensive understanding of the identified antecedents and its consequences. So, our study considers KM as the mediating variable and the processes that involve human affairs as the major factors of the KM processes.

The criteria used for selecting the three KM processes in this study (namely knowledge acquisition, knowledge dissemination, and responsiveness to knowledge) are: (1) the degree of importance that the three KM processes have been assigned in the KM literature, (2) the consideration of the context within which Uganda's FIs operate (see Chapter 5), and (3) the results from Survey 2 that show that the employees of Uganda's FIs consider the three KM processes to be the most important for attaining and sustaining an HPO in the sector.

2.2.4 Knowledge Management Models in Practice

Knowledge management models work best when the people who generate the knowledge, are the same people who store it, explain it to others, and coach the others as they try to implement it. Thus, these systems must be managed by the people who are implementing what is known, not those who understand information technology (Sutton, 2000). This statement emphasises the relation between KM models in practice and human resources. It is quite appropriately expressed as follows. "To say that knowing is a human act is to highlight the fact that knowledge involves humans who do the knowing" (Lang, 2001, p.44). It highlights that knowledge is a somewhat essential resource, and therefore people are the

only true source of knowledge, making them the centre of the KM process (Priti, 2006). In the literature we see a wide discussion between strategy and human resource management (HRM), in which KM is suggested as a way forward (Brown, 2004).

Typically, an HPO is more effective than their competitors at exploiting the collective intelligence and motivation of their workforce. If banks are to meet their important competitive challenges today, they must increase the energy and focus on how they address the workforce capabilities necessary to succeed. Banking success today requires a highly engaged, skilled, and productive workforce: the right people, with the right skills, doing the right things to contribute to the long-term success of the business (cf. Accenture, 2009).

2.3 Knowledge Management and High Performance

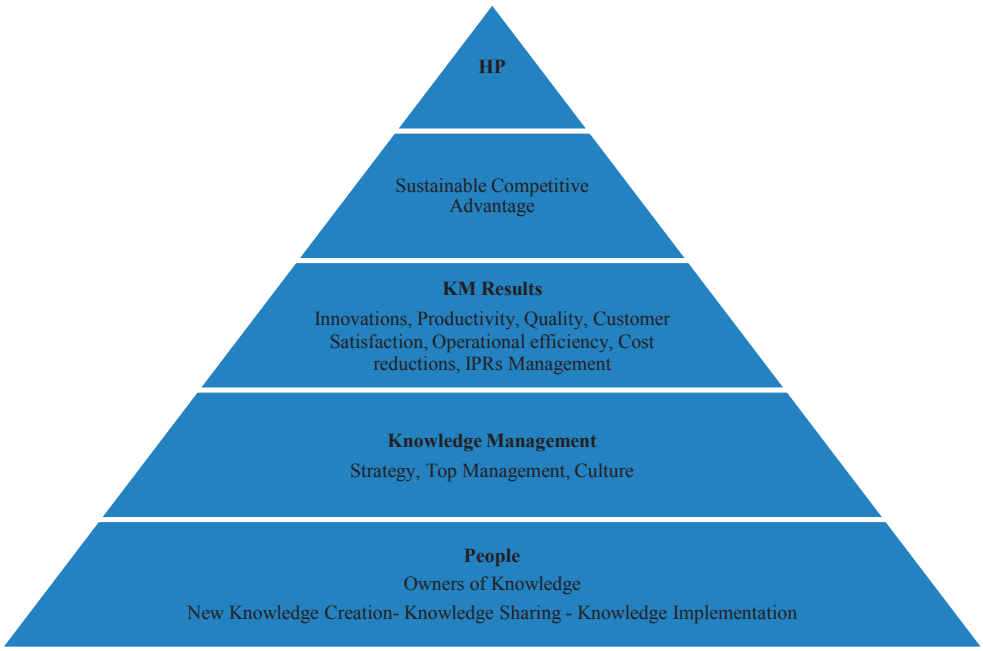
In this section we review literature on the relationship between KM and high performance. The issue under investigation is how to position KM operationally and strategically to ensure the greatest positive result on the performance of an organisation. This can be achieved through a high performance workforce comprised of engaged employees that have the necessary skills and inspiration to contribute to the growth of the business (see Hewitt, 2007; Waal, 2008). The concept of the knowledge worker (cf. Green et al., 2006) has long been important in the finance industry and for our study we concentrate on the human resources (HR) as the owners of knowledge. We argue that the knowledge if available in the human resources via an HPO framework and if well managed will accelerate the transition of the FI to an HPO, provided that the accommodation of the knowledge in the HPO framework is well suited.

Figure 2.2 consists of five layers. It shows how the applications of KM may result in high performance. Of course, there is no guarantee. The figure only shows a possible path. At the bottom of the triangle, people (the owners of knowledge) create, share, and implement knowledge. In the second layer, KM uses knowledge creation, knowledge sharing, and knowledge implementation to develop a KM strategy.

The third layer contains the KM results of which technology frequently is the enabler.KM results in an increase of innovations, productivity, quality, customer satisfaction, operational efficiency, cost reductions, and adequate management of intellectual property rights (IPRs). Implicitly we assume a faster decision-making by management. Yet, all these achievements impose high requirements on the organisation. Based on the results, in the fourth layer sustainable competitive advantage can be achieved. In the fifth layer, the organisation may be ready to achieve high performance (cf. Pillania, 2008).

For an effective KM, it is assumed that the KM activities depend on (1) the type of knowledge that employees would have acquired, (2) the process of the dissemination (sharing and

Figure 2.2 Knowledge management leading to high performance.



(Adopted from Pillania, 2008).

transfer) of knowledge in the organisation, and (3) how the organisation stakeholders respond (access and use) to the knowledge within the institutions. These KM activities are suggested by e.g. Lee et al. (2012). Below they will be discussed in detail. In subsection 2.3.1 we deal with knowledge acquisition in HPOs;in subsection 2.3.2 we consider knowledge dissemination in HPO, and in subsection 2.3.3 the responsiveness to knowledge in HPOs.

2.3.1 Knowledge Acquisition in HPOs

This subsection discusses the relationship between knowledge acquisition and the performance of an HPO.

Definition 2.3 Knowledge acquisition

Knowledge acquisition is the process of absorbing and storing new information in memory.

Knowledge acquisition (KA) refers to searching for, identifying, selecting, collecting, organising, and mapping knowledge (Pinho et al., 2012), the success of which is often gauged by how well the information can later be remembered (retrieved from memory). The process of storing and retrieving information depends heavily on the representation

and organisation of the information. Moreover, the utility of knowledge can also be influenced by how the information is structured. Min-Shi Liu and Nien-Chi Liu (2008) state that new knowledge acquisition methods and new sharing-the-stage methods represent the start of the organisation's overall knowledge creation process. From an HPO's knowledge-based view, the uniqueness of knowledge plays an important role in maintaining the HPO's competitive advantage (for these ideas we already referred to Grant (1996)). It was suggested that a company wishing to establish and maintain the knowledge needed for a competitive advantage must create and acquire new knowledge, transmit knowledge to appropriate parts of the company, interpret that knowledge, integrate it with existing knowledge, and use the knowledge to achieve better performance (cf. Cohen and Levinthal, 1990; Shu Hsien et al., 2009). The question here is how to bring theory into practice. And does it work?

In Waal (2012), Waal relates knowledge acquisition to the HPO factor openness and action orientation. Moreover, he suggests that it is 'the activity through which the understanding of a subject is exchanged with other people. In HPOs, management makes sure there are infrastructures and a shared knowledge base present in the organisation to collect and translate knowledge and best practices company-wide and to create an efficient sharing process. In addition, HPO managers deliberately cultivate and utilize new ideas and knowledge from everyone anywhere in the firm. They do this by stressing the importance of lateral, cross-division, cross-function, and cross-ranked knowledge exchanges within the organisation.

For the sake of completeness we do mention Penrose (1959). She is widely acknowledged as one of the first scholars to recognise the role of knowledge in business organisations. She saw acquiring knowledge as a social learning process. This observation is echoed by Chen et al. (2006) who note that social and electronic networks were important channels through which a firm acquires knowledge. The increase in knowledge not only causes a productive opportunity for a firm to change in ways unrelated to changes in the environment, but also contributes to the "uniqueness" of the opportunity of each individual firm (cf. Penrose, 1959).

In addition, knowledge development complements knowledge acquisition in HPO. Their focus is on generating new skills, new products, better ideas, and more efficient processes (Nguyen and Mohamed, 2011). During alliances, organisations have the opportunity to acquire knowledge from their partners without going through the same experiences that the partners had to go through (Eriksson et al., 2000). The deliberate effort of acquiring knowledge helps; An HPO maintains good and long-term relationships with all stakeholders by (1) networking broadly, (2) being generous to society, and (3) creating mutual, beneficial opportunities, and win-win relationships (Waal, 2008).

2.3.2 Knowledge Dissemination in HPOs

This subsection reviews literature related to knowledge dissemination in HPOs. Recently, Waal (2012) voiced the opinion that knowledge dissemination is important, since it is the process of transmitting information in the right context to target receivers for absorbing. Competent receivers can then achieve a better performance, and subsequently may share the acquired knowledge with different receivers. Understanding of the concept knowledge dissemination is of utmost importance for an HPO because the achievements depend on the knowledge dissemination strategy (cf. Vorakulpipat and Rezgui, 2008). In general, knowledge dissemination creates opportunities to maximise an organisation's ability to meet the requested needs and generate solutions and efficiencies that provide a business with a competitive advantage (Reid, 2003; Lin, 2007) and subsequently with an HPO status.

Studies further reveal that firms adopting knowledge dissemination mechanisms are more likely to attain better results in exploiting external scientific knowledge (Granero and Vega-Juado, 2012).In the literature, the following three terms are frequently used instead of "knowledge dissemination": "transfer" (Argotre and Ingram, 2000), "sharing" (Sparrow, 2006), and "dissemination" (Darroch, 2005; Pillania, 2008). However, for the purposes of this study, the concept "knowledge dissemination" will be used.

Definition 2.4 Knowledge dissemination

Knowledge dissemination is the degree to which information is distributed, shared, and discussed among relevant users within an organisation by formal and informal means. (Carbonell et al., 2010)

Knowledge dissemination (KD) can also refer to the distribution of embodied knowledge throughout a firm or a value chain (cf. Damarest, 1997). Yet, the term KD has different meanings to different people. It is the transfer of knowledge within and across settings, with the expectation that the knowledge will be "used" conceptually (as learning, enlightenment, or acquisition of new perspectives or attitudes) or instrumentally in the form of modified or new practices (Dalrymple et al., 2002). There are, however, those who see dissemination as having other legitimate outcomes. Some of these outcomes include: (1) increased awareness, (2) ability to make informed choices among alternatives, and (3) the exchange of information, materials, or perspectives. Dissemination of salient knowledge is considered to impact the formation of a competitive advantage (Gupta and McDaniel, 2002).

Knowledge is created in the human brain, and only the right organisational climate can persuade people to share it. People in an HPO environment therefore, actively share information, knowledge and best practices organisation-wide. Management makes sure that there are infrastructures and a shared knowledge base in the organisation, to collect

and translate knowledge and best practices company-wide and to create an efficient sharing process.

Research has shown that organisational knowledge dissemination from both internal and external sources has important implications for the organisational performance (Wijk et al., 2008; Zhining Wang et al., 2014). There are two possible reasons for the implications related to the origins of knowledge. It can be common human knowledge or it can be critical knowledge. We remark that these classes do not exclude each other in HPOs. Despite the fact that human knowledge may be an organisation's most valuable asset, much of this knowledge is never shared (Harris, 2006). So, only a small part of human knowledge may be the cause of the implications. However, according to Martelo-landroguez (2014) the survival and success of banks require that managers and the organisations they manage meet the challenge of combining internal and external knowledge. Harnessing critical knowledge and using it to create a common vision and objectives can move an organisation closer to realising a high performance workplace.

Sharing critical knowledge may create a more powerful organisation that may later transform to an HPO (Zhining Wang et al., 2014). By creating a pool of critical knowledge and sharing it with others in the organisation, employees can build up relevant knowledge faster, and more effectively. As a firm shares more knowledge, its ability to adapt to changes improves considerably (Masele, 2008). Therefore, knowledge dissemination requires the transmission of human knowledge from an arbitrary source manager, and its internalisation by a recipient third party (see also Joshi et al., 2007; Kumar and Ganesh, 2009). It also requires critical knowledge since the success of knowledge dissemination lies in the changes that occur in the understanding of knowledge by the receiver (see also Hasty et al., 2006; Ghobadi and D'Ambra, 2012).However, these studies have said little about the effect that knowledge dissemination can exert on performance in an HPO.

2.3.3 Responsiveness to Knowledge in HPOs

In this subsection we review literature related to the employees' responsiveness to knowledge in HPOs. Findings from an earlier study by Probst et al. (1999) reveal that knowledge is the only resource that increases by its use. Foss et al. (2010) in their study on managerial practices and its effects on the exploitation of external knowledge as opposed to our current study found that the focus of response to knowledge lies on one specific type of external source, clients and users. HPOs motivate and enable their knowledge workers to be productive through knowledge sharing and re-use (Thomson, 2010). It shows the way knowledge functions in service provision. There are many ways by which the value of a service can be increased, e.g., by adding a knowledge component. Two examples are as follows. First, the HPO continuously innovates products, processes, and services (Waal, 2012). Thus, an HPO creates new sources of competitive advantage by rapidly developing

new products and services (Lawler, 2007; Jamlog, 2012). So, it responds to market changes. Second, the organisation also masters its core competencies and is an innovator in the core competencies by (1) deciding and sticking to what the company does best, (2) keeping core competencies inside the firm, and (3) outsourcing non-core competencies (Basadur and Gelade, 2006; Waal, 2010).

Definition 2.5 Responsiveness to knowledge

Responsiveness to knowledge means that an organisation responds to various types of knowledge it has access to. (Darroch, 2003)

Responsiveness is the action taken in response to intelligence that is generated and disseminated (Carbonell et al., 2010). The relationship between knowledge responsiveness and HPO is remarkable. We show this relation by three observations. First, like other resources, the value of knowledge increases when the value of other resources decreases when used (see Shapiro and Varian, 1999; Bogner and Bansal, 2007). As a result, the more knowledge is used, the more valuable it becomes for the people and the organisation(s) involved (cf. Smits and de Moor, 2004; Zack et al., 2009). Second, KM is an interdisciplinary concept covering the greater part of an organisation's activities. The main field of KM is the use and development of an organisation's knowledge resources in order to meet its goals (Ruzevicius, 2006). Third, knowledge, such as expertise, creative ideas, and skills, is treated as a resource that can be captured, codified, and shared (Nonaka and Tekeuchi, 1995; Zhining Wang et al., 2014). Knowledge utilisation and application is creating value (in its broadest meaning) based on existing knowledge within the firm (cf. Mehrizi and Bontis, 2009).

The HPOs are ideally continually seeking feedback to improve customer satisfaction (Gitman et al., 2005; Farris et al., 2010; Martelo-Landroguez, 2014). The activities of responsiveness to knowledge create new sources of competitive advantage. People in HPOs take action in response to the knowledge gathered, filtered and interpreted to sustain superior performance. As knowledge is the only resource that increases by its use, the responsiveness process is very important to increase added value in activities such as continuously innovating products, processes, and services (Waal, 2012). The more knowledge is used, the more valuable it becomes for the people and the organisation. It appears from the preceding review that KM is not linear but an integrated and cyclical process of managing acquisition, dissemination, and responsiveness.

Whereas knowledge acquisition, knowledge dissemination, and knowledge responsiveness are key processes in attaining and sustaining high performance in organisations, the key behaviours in these change processes are not exhaustively examined although we managed to interview many of them in financial institutions.

2.4 Knowledge Management Practice in Financial Institutions

In this section we review the literature related to KM in the financial institutions. The existing literature shows that relevant knowledge always tends to be on the critical path of workflows and as a result affects the organisational performance (Nissen, 2006). According to Phaharad and Hamel (1990), financial services are one of the knowledge-intensive sectors. The level of KM and its application will have an impact on the bank performance (this was one of the earlier observations, see Wang, 2004). Though it is not always the case with all financial organisations, it is assumed that KM initiatives would be an adequate strategy towards a high performance status for financial institutions.

Definition 2.6 Financial institutions

Financial institutions are defined as enterprises which collect funds from the public. They invest the funds obtained in financial assets such as deposits, loans, and bonds, rather than in a tangible property. (cf. Harvey, 2004)

The financial service sector is perhaps the most significant economic sector in modern societies (cf. Harker and Zenios, 2000). It reached this position in the last fifty years. A telling example is the growth of the finance industry in the USA. In 1947 the U.S. finance industry comprised only 10% of total non-farm business profits, but it grew to 50% by 2010. Over the same period, finance industry income as a proportion of GDP rose from 2.5% to 7.5%, and the finance industry's proportion of all corporate income rose from 10% to 20% (see Soltas, 2013). In the more advanced economies, such as the US, the finance sector employs more people than the manufacturing of apparel, automobiles, computers, pharmaceuticals, and steel combined. In the US 5.4 million people were employed by the FIs in 2000. However, the mean salary in New York City's finance industry rose from $80,000 in 1981 to $360,000 in 2011, while average New York City salaries rose from $40,000 to $70,000. Similar statistics are found for other European Union economies with highly developed financial intermediaries, for example, there are 145,000 employees who earn 100,000 Euros or more annually in the Netherlands, most of whom work within the financial services sector (McDaid, 2013).

While the world financially shrunk by about half a percent in 2009, Africa grew by two percent (2%) on average. For the medium-term future, Sub Saharan Africa (SSA) will be the third fastest growing region in the world, after China and India. According to the International Monetary Fund (IMF), Africa has grown at nearly five percent (5%) in 2010, and at five and a half to six percent in 2011 and beyond. Good macro-economic policies allowed many African countries to use stimulatory fiscal and monetary policy measures to steer through the crisis (Hirsch, 2009).

There is no doubt that Africa's performance through this crisis has been more impressive than at any other time since colonialism. During colonialism, Africa was typically used as a source of cheap finance by the colonial powers during economic crises. So, its performance

in the 2008/9 crisis is probably better than at any time since Africa integrated into the world economy. Despite its reliance on knowledge, a lack of skills is still one of the key challenges facing the industry on a daily basis, according to the South Africa Banking Survey 2004. In particular, the attraction and retention of skilled staff, shortage of skills in respect of previously disadvantaged groups, the standards of skills and the continuous process of upgrading staff skills are the primary concerns (Squier and Snyman, 2004; Oluikpe, 2012). Most of the studies slightly related to this particular study were conducted in research settings quite unrelated to those existing in Uganda and as such their external generalisability or applicability in Uganda is a matter of serious debate.

Understanding KM within the Ugandan environmental context is difficult as the published work on it is quite sparse. In addition, a majority of the work written on KM in Uganda tends to be conceptualised or theoretical with no fundamental research being conducted. A number of papers attempted to achieve prescribing measures that have been found to be successful in other countries without fully understanding what is happening within the local context. However, a small part of the empirical research conducted has indicated that various key differences exist in managing knowledge in Uganda. (See Table 2.3)

Table 2.3 KM research in Uganda.

Author	Area of Research
Mafabi et al. (2012)	Knowledge management and organisational resilience: organisational innovation as a mediator in Uganda parastatals.
Kamukama et al. (2011)	Competitive advantage: mediator of intellectual capital and performance.
Kamya, et al. (2010)	Knowledge management and competitive advantage: the interaction effect of market orientation.
Muhenda et al. (2008)	Do knowledge management practices in Higher institutions of learning affect innovation: empirical findings from Management Development Institutes in Uganda and Tanzania?
Turyasingura (2008)	Knowledge management and Institutional/Organisational Learning in higher Institutions of Learning in Uganda and South Africa: Implications for Quality Training.
Muheirwe and Berg (2007)	Healing an organisation; High Performance Lessons from Africa.

Table 2.3 indicates that while KM has been advocated by organisations worldwide, there are a few studies that have undertaken comprehensive analysis on the impact of KM in FIs in Uganda. In Uganda, the banking industry has become a highly competitive environment because of banking deregulation. The regulatory changes coincided with such technological advances as ATMs, telephone banking, pc-based banking, and information-system advances. With the introduction of the knowledge economy in most countries, knowledge itself has become a strategic asset as well as the main source of organisational performance (Adenfelt and Lagerstrom, 2008). Therefore, enabling corporate knowledge to be captured and shared

and finding ways to use this knowledge to enhance the efficiency and effectiveness of FIs are two key challenges to developing countries.

Along with deregulation, the merger and acquisition strategies have created institutions with diverse product lines in Uganda. These are often sold by a consolidated sales force formed by the companies that were involved in the merger. However, these companies had little experience with selling the entire range of products. However, one of the weaknesses of our financial system is its lack of depth. Financial products are limited to short term loans and leasing arrangements. They are, therefore relatively small amounts given out and for short periods of time, which do not allow businesses the wiggle room to work. By employing KM, the institutions may help the employees' knowledge curve to grow (Oppong et al., 2005).

In summary, we may note that the financial service sector in developing countries is facing a hard-hitting competition in this era of privatisation, liberalisation, and globalisation. Organisations are trying to find ways to survive and compete (see Waal, 2008; Pillania, 2008), because of the growing concerns on the omissions to be explained. Our study aims at providing the UFI model for HPO for achieving a sustained high performance in developing countries.

2.5 The HPO Practice, Knowledge Management and Competitive Advantage

This section briefly discusses the relationship between the HPO framework, KM, and competitive advantage.

2.5.1 HPO Practice in Financial Institutions

Many studies have revealed a passion for high performance in FIs, for example the UMPQUA Bank (USA). The bank has been visited by many competing banks to see how they could copy what the bank was doing; none of them has yet succeeded in reproducing its success. This was confirmed by Waal (2012) who established that copying a successful organisation does not automatically create an HPO. Even though Horgan and Muhlau (2006) had earlier suggested that the common thread in achieving and sustaining high levels of performance requires a positive workplace environment and practices that develop and leverage employees' knowledge and ability to create value. Many studies have been undertaken on HPO practice in FIs in developed countries such as the USA (cf. Bogna and Bansal, 2007 and also Waal, 2012), and are in agreement. They advocate for effective KM to add value to the services of the financial institution in order to improve its performance.

The findings by Afande (2013) concern another developing country, viz Kenya. The findings show that the strategies adopted by FIs in Kenya cope well with the competitive environment. They include vigorous pursuit of cost reductions, providing outstanding

customer service, improve operational efficiency, control the quality of products/services, intensify supervision of frontline personnel, develop a new brand or a new company name, target a specific market niche, and provide specialty products/services. No wonder that the findings also show a significant relationship between the strategies adopted by the FIs in Kenya and their respective performances. The following objective performance indicators may speak for themselves: total revenue growth, total asset growth, net income growth, market share growth and overall performance or growth.

We believe that launching a strategy of attaining high performance in FIs cannot be delayed, let alone ignored. A further study on HPO practice was carried out by Waal et al. (2009) in the Vietnamese banking industry. Moreover, Waal and Frijns (2009, 2011) carried out a longitudinal research into factors of high performance in the Nabil Bank Nepal. The study established that the applicability of the HPO framework improves the performance of that particular financial institution. These two examples (Vietnam and Nepal) stimulated us as researcher to investigate whether the HPO practices in FIs in Uganda will follow the same trend. So far, no specific study has considered the HPO framework as a possible model to improve performance in FIs in Uganda.

2.5.2 Competitive Advantage

Competitive advantage is an advantage enjoyed by an organisation over others. The concept is derived from the ability to offer consumers greater value for money through reduced prices or to offer them the provision of services/products that may justify higher prices (Scott, 2007). Competitive advantage is the extent to which an organisation is able to create a defendable position over its competitors (McGinnis and Vallarta, 1993, p.13). There are many definitions of competitive advantage, and there has been quite some discussion on it. For our study we will use Porter's definition since we base our claims on his Five Forces model (see 3.2.3). Below we define competitive advantage as used in our study.

Definition 2.7 Competitive advantage

The firm is said to possess a competitive advantage over its rivals when it sustains profits that exceed the average for its industry. (Porter, 1998)

A competitive advantage is a condition which enables a firm to operate in a more competent or otherwise superior quality way than its competitors. Competitive advantage results in increased benefits. It is known to be a function of the extent to which an organisation adapts and applies its resources in the exploitation of prevailing market conditions. In turn, this is dependent on the level of knowledge about the existing market conditions, the modern production techniques, and the newly available processes (Diugwu, 2010).

Porter (1998) suggests that sustainable competitive advantage can be attained either through cost leadership, a differentiation approach, or (new) focus approaches. A sustainable competitive advantage is the established benefit of implementing a unique value-creating strategy, based on a unique combination of internal organisational resources and capabilities that cannot be replicated by competitors (cf. Pfeffer and Sutton, 2000). Thus, a sustainable competitive advantage allows the maintenance and improvement of the enterprise's competitive position in the market. It is an advantage that enables a business to survive in its competition over a long period of time. We argue that managers should be committed to creating an economic value to their stakeholders. The best means to create that value is to focus on sustainable competitive advantage as its input. Hence, knowledge is primarily employed to increase the competitiveness of an organisation (see also Huang et al., 2010).

Obviously, the earlier introduction of the concept of being a knowledge economy in most countries, the financial and economical knowledge has become a strategic asset as well as the main source of organisational performance (cf. Adenfelt and Lagerstrom, 2006). We consider the financial and economic knowledge to be the justification for considering KM as a practice that can help FIs sustain competitive advantage leading to establishing itself as HPO. The interplay between the HPO framework and the competitiveness of an organisation improves performance (Waal and Frijns, 2011). However, a serious warning should be voiced: competitive advantage can be temporary if the coordinated resources are not institutionalised (see Chang and Wu, 2005) which means this is the only way to bring the performances at a higher level.

All in all, our conclusion is that KM is extremely valuable for competitive advantage (cf. Yang Cheng Hu, 2010). Moreover, knowledge can be a critical competitive tool that can substantially support and foster enterprise adaptation, survival, and enhanced performance (Sigala and Chalkiti 2007; Waddell and Steward, 2008). In order for an organisation to be successful in the exploitation of knowledge assets to drive competitive advantages, a holistic approach that spans KM, business strategy, and organisational and human factors should be used (see Cedar, 2003). So far, we may remark that Uganda (which is our case study) lacks competitiveness, according to various competitiveness indices (see, e.g., Blanke, 2007, p.20; Ishengoma and Kappel, 2011). The foregoing implies that lack of competitiveness may affect the performance of an organisation.

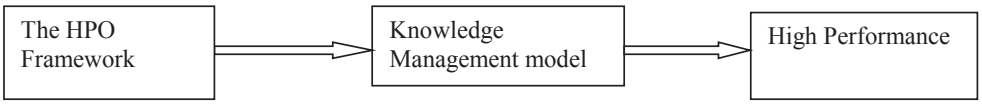
2.6 Theoretical Analysis

In the literature review we found existing evidence which indicates that (1) a reasonable amount of information has been documented and (2) a fair amount of research has been conducted in the broad context of our study. However, none of these indications adequately addresses the critical issue closely linked to the particular focus and dimensions inherent to our study, viz. the relationship between the HPO framework and high performance. Moreover, we are well aware that Pillania (2008) stated that studies which have been conducted to establish the role of KM in HPO in FIs are few in number; they only cover a limited range of services, and are methodologically flawed. Given the weaknesses and methodological imprecisions, our study has the challenging nature to become highly essential. Obviously, in Uganda the applicability of the HPO framework and its theoretical discourse faces a research gap that needs to be addressed. The few studies (see Table 2.3) that have been conducted in Uganda, have addressed KM and general organisational performance issues such as profitability. Our study specifically focusses on the HPOframework, human-related processes of KM and their role in the high performance of FIs in a developing country.

Towards the UFI Model for HPO

In order to integrate and extend the existing views from the literature, we will develop the UFI model for HPO (which stands for the Uganda Financial Institutions Model for High Performance Organisations) within which we undertake an empirical study to explore the relationship between the HPO framework, the processes of KM, and High Performance. Moreover, our UFI model for HPO emphasises the effect of Waal's (2008) HPO framework on the relationship between KM and High Performance. The UFI model for HPO is based on the research contributions by Porter (1991), Huselid (1995), Darroch (2005), Waal (2008, 2010, 2012), AMA (2007), Bogner and Bansal (2007), Pillania (2008), and Wijk et al. (2008). In Figure 2.4 we show the three crucial elements of the UFI model for HPO.

Figure 2.3 The three crucial elements of the UFI model for HPO.



The UFI model for HPO conjectures that (1) there is an alignment between the HPO framework and high performance which is guided by the KM model in the FIs and that (2) this alignment has a positive contribution to high performance. The HPO framework (adapted from Waal's (2008) framework and proposed by the current study) is also influential on the relationship between the KM models and high performance. This conjecture is based on the

literature that the HPO framework improves the performance of an organisation and the introduction of KM in the relation leads it to high performance. From the literature review we may conclude that KM is able to support this relation by well tuned strategies. The UFI model for HPO will be discussed in details in Chapter 3.

2.7 Chapter Conclusion

The literature review has helped us to identify what has been advanced so far empirically and conceptually. It has given insights into research possibilities that have so far been neglected. The literature has also helped (a) to identify the research strategies and approaches that may be appropriate for our study and (b) provide a deeper insight into the research questions and objectives. Moreover the literature review has laid a foundation for our subsequent discussions in other chapters.

Following the literature review, it is evident that research on HPOs in Uganda is still in its infancy, in particular when compared with research on KM or competitive advantage topics. Hence, we may expect that there is an important role for KM in the establishment and sustainability of HPOs in Uganda. KM could be the strategy that FIs need to sustain HPO. However, we also observed that many organisations are not taking full advantage of the KM possibilities in their quest for performance. This may be attributed to organisational and human constraints. To encourage the development of KM behaviours and practices, managers need evidence that financial performances will be enhanced as a consequence. This study investigates the exent to which effective KM is a worthwhile activity for managers to emphasise. For this reason we will examine (1) the factors of an HPO framework and their relationship with high performance, and (2) the role which KM can play in the effort to achieve high performance. In particular, we will examine (3) the study will investigate the extent to which effective KM contributes to the relationship between the HPO framework and high performancewith respect to FIs in Uganda.

CHAPTER THREE

Theoretical Foundations and the UFI Model for HPO

3.0 Theoretical Foundations and the UFI Model for HPO

In this chapter our aim is to lay a theoretical foundation for the subsequent discussions in other chapters and to develop the UFI Model for HPO. We also attempt to answer *RQ1: What are the theories applicable to understanding KM practices and HPO in financial institutions in Uganda?*

To place our study into the context of existing knowledge, three theories related to high performance and the knowledge management are discussed in section 3.1. The four elements of the UFI Model for HPO are discussed in section 3.2. The UFI model for HPO is presented and explained in section 3.3. Then the methodological implications of the UFI Model are described in section 3.4. In section 3.5 we provide the answer to RQ1 and provide the chapter conclusion.

3.1 Three Theories Related to the Study

High performance organisations are relatively new to the management theory (Morrison, 2007). Moreover, there is not yet a comprehensive theory which has been generally accepted in the field (cf. Schermerhorn et al., 2004; Busi and Bitici, 2006; Allen, 2009; Waal 2010). We carried out an analysis of the recent articles in the top journals about high performance and KM. A subsequent search of the academic databases, such as EBESCO, Science Direct, Emerald, and using the citation index through Google search as well as a list of top journals on the field, comprehensive articles on KM studies we obtained; however the search did not yield a good number of complete studies into characteristic of high performance in the developing countries context. We mention the following journals: the journal of knowledge management, management studies, measuring business excellence, performance improvement and the strategic management journal. The selection procedure was based on the criteria variable and the predictor variable (HPO and knowledge management. Out of the 30 articles, 25 revealed that HPOs are typically determined by developments according to the resource-based view of the firm (Lockett et al., 2009) and according to the theory of dynamic capabilities (Peteraf and Barney, 2003; Easterby-Smith et al., 2009; Teece, 2009; Waal, 2010). We therefore adopt these two theories for further investigation. Since we aim at the investigation of involving KM in the relation of the HPO framework and high performance, we add the knowledge-based theory for closer research. As a caveat to ourselves we remark, that resource-based view and dynamic capabilities should have a fit with KM practices via the factors that cause or facilitate high performance and that the knowledge-based theory should have a relation with high performance. Below we discuss the three theories in the subsections 3.1.1 to 3.1.3. In subsection 3.1.4 we explain the outcome of our analysis.

3.1.1 The Resource-Based View

The resource-based view (RBV) goes back to Penrose (1959). Over time, RBV was further developed by scholars such as Wernerfelt (1984) and Barney and Conner (1991). RBV assumes that firms possess resources, a subset of which enables them to achieve competitive advantage, and another subset of those leads to a superior long-term performance. Resources that are valuable and rare can lead to the creation of a competitive advantage that can be sustained over longer time periods to the extent that the firm is able to protect itself against resource imitation, transfer, or substitution. Then the RBV has a nature of competence and has assets that enable sustainable competitive advantage (Barney, 1996; see also Barney and Clark, 2007).

The organisational resources include: routines, culture, invisible assets, human resource, and information technology (see Bharadwaj, 2000). The speed of accumulation and assimilation of resources is the key to firm growth (Pitelis, 2007). This holds true, too, for opportunities arising from underutilisation of the resources. Firms continuously search for new ways to increase productivity and efficiency. New knowledge yields new ways of using existing resources or new ways of combining sets of resources. The RBV looks at the firm in terms of its resource base. Resources are anything which could be thought of as a strength or a weakness of a given frame (Wernerfelt, 1984).

In general, the empirical studies available have strongly supported the RBV as the foundation theory for performance improvements (see Barney, 1991; Collins and Montgomery, 1995; Wade and Hulland, 2004; Lockett, Thompson and Morgenstern, 2009). The theory considers the firm as a collection of resources. The capability to deploy groups of resources is the key for management success (see Teece et al., 1997). Sustained competitive advantage comes from: (1) complementarity of resources in creating heterogeneity of efficiency in industry, and (2) value, rareness, inimitability, and non-substitutability of the complementary resources (Barney, 1991).

Scholars[2] suggest that it is hard to implement effective management practices, since there is a problem of operationalising the RBV consistently across firms. They claim that the RBV achievements should be viewed as part of the larger body of the theory of competitive heterogeneity. Carmeli and Tishler (2004) tested the relationship between (1) intangible resources and (2) performance by focussing on managerial capabilities, human capital, perceived reputation, internal audit, labour relations, and organisational culture. The results indicated that intangible organisational elements had a significant effect on firm performance. The examples of intangible elements are culture, communication, and knowledge. There are also tangible organisational elements: facilities, raw materials, and

2 Scholars of the "theory of the firm'' emphasise the sources and conditions of what is in knowledge creation, storage, and deployment (Roberts, 1998; see also Grant, 1991).

equipment which have an important role in creating an organisation's value. Resources may include tangible and intangible assets which are fixed semi permanently to the firm. Since resources and capabilities are at times used interchangeably, and sometimes are even confused with one another (see Ethiraj et al., 2005), we prefer to define them explicitly.

Definition 3.1 Resources

Resources are the assets which a firm owns. They are externally available and transferable. (cf. Grant 1991)

Definition 3.2 Capabilities

Capabilities are the efficiency with which a firm employs a given set of resources (inputs) that are at its disposal to achieve certain objectives (output). (Dutta et al., 2005)

Further clarification has been given by Peteraf (1993) stating that resources are assets while capabilities are processes, firm attributes, or knowledge. Newbert (2007) contends that these distinctions are minimal. There has been a considerable discussion and a lack of agreement in the use of terms and attributes of RBV (Newbert, 2007). By defining capabilities as the capacity to act, we deduce that knowledge, in conjunction with resources, give the firm its capabilities, and that the existence of capabilities is the prerequisite for potential action of any kind. Conversely, the observation of action by the firm demonstrates the existence of capabilities, and the existence of capabilities inherently identifies the presence of knowledge, even if knowledge itself cannot be directly observed.

Whereas a resource is an observable asset, a capability is not, thus making it difficult for it to be imitated. KM may be necessary in bringing institutions together to share some of the capabilities that may be difficult to imitate if they operate independently. The key implication is that the theory is vested in human capital as knowledge workers (cf. Nonaka et al., 2000).

Below we consider (A) criticisms of the RBV, and (B) RBV's relevance to our study.

A. Criticisms of the RBV

The RBV in strategic management has been generally criticised for

1. Relying on inconsistent assumptions of rationality, and
2. Mutually inconsistent underlying hypotheses.
   Three more criticisms are as follows.
3. Specifically, the RBV treats knowledge as a general resource, rather than having special characteristics. It therefore does not distinguish between different types of knowledge-based capabilities.

4. (4) In addition, the RBV does not precisely specify the distinctions between resources and capabilities. It is unclear (a) whether they are inherently internal to the firm or can be outsourced, and (b) whether resources by themselves enable capabilities or capabilities create resources (Kaplan et al., 2001).
5. (5) The RBV lacks detail on resources and is therefore difficult for organisations to implement (Priem and Butler, 2001). A more detailed road map is required to prove RBV useful to organisations.

In summary, the RBV is an inward looking view in terms of resources. It has been criticised for ignoring factors surrounding resources instead of assuming that they simply "exist". Considerations such as how resources are developed, how they are integrated within the firm, and how they are released have been under-explored in the literature. Below, we transform the criticism into three relevant issues. (1) What is sustainably unique in an organisation that others cannot copy? (2) The contentious issue is a sustainable competitive advantage; how possible is it?, and (3) There is no consensus on the theoretical level.

In the RBV, the assumption of inimitability promotes intuitive actions and eventually ambiguity, especially when an individual leaves the organisation. It is admitted that the theory leads to a conclusion that organisations are always static, without a desire to achieve another status such as the HPO. Thus, the theory does not clearly explain how rare resources can lead to high performance.

B. Relevance of the RBV approach to our study

We use the VRIO (Value, Rare, Inimitability, non-substitutability, and Organisational support) framework (cf. Barney, 1991; Conner, 1991) to analyse the applicability of RBV in the FIs in Uganda (see Table 3.1 its source is in our literature review). Some FIs have more value than others and different resources than others. Some FIs have unique resources which others need to use. Yet, they cannot easily imitate them.

Table 3.1 suggests that the main reason why RBV seems relevant for examining high performance in FIs in Uganda is that FIs relate valuable and rare resources to other foreign FIs. The RBV's underlying principle is about value maximisation through pooling resources; thus FIs are viewed as attempting to find optimal resource boundaries through which the value of their resources is better realised than through other resource combinations (cf. Pitelis, 2007). FIs have various specialisations, similarities, and also differences, but they are complementary. The RBV helps to appreciate that shortage of resources (shared among the FIs) may enhance sustained high performance.

Table 3.1 Applicability of RBV to FIs in Uganda.

VRIO framework	Case of Financial Institutions in Uganda
Value	Resources /capabilities in financial institutions are of value (economic importance).
Rare	Resources/capabilities are rare in financial institutions and not available in others.
Inimitable	The resources/capabilities in the financial institutions in Uganda meet the criterion of being isolated from imitation or substitution. Resources/capabilities in Banks are specialised and immobile, making them costly to replicate. Even if replication was possible, it would take much time for institutions to do so.
Non-substitutability	Human resources with tacit knowledge are non-substitutable. Collective knowledge of employees influences the quality of services.
Organisational support	There is organisational support, supplied with management support, and processes to support high performance.

***Sources**:* Barney (1991) and Conner, (1991)

3.1.2 Dynamic Capabilities

The concept of dynamic capabilities arose from a key shortcoming of the resource-based view of the firm, viz. the dynamics of the environment to which the firm has to adapt. Dynamic capabilities attempt to overcome the short comings by adopting the following process approach: by acting as a guard between firm resources and the changing business environment, dynamic resources help a firm to adjust its resource mix and thereby maintaining the sustainability of the firm's competitive advantage, which otherwise might be quickly eroded.

According to Teece et al. (1997), Peteraf and Berney (2003), and Wade and Hulland (2004), the dynamic capability theory attempts to provide further insight into how capabilities facilitate achievement of firm performance. Teece et al. (1997) further emphasise that dynamic capabilities were high-level routines that conferred upon an organisation's management a set of decision options for producing significant outputs. Teece et al. contend that "*dynamic capabilities are the ability to integrate, build, and reconfigure internal and external competencies to address rapidly-changing environments."*As with the RBV we consider below (A) criticisms of DCs and (B) the relevance ofthe dynamic capabilities theory to our study.

A. Criticisms of DCs

While the RBV emphasises the resource choice or the selection of appropriate resources, dynamic capabilities emphasises the resource development and renewal. The dynamic capability, though an extension of the RBV, is an outward looking theory. However, the use of dynamic capabilities has not been adequately explained to the managers by its proponents. The reason is that dynamic capabilities tend to be confused with their outcomes. The main

criticism is that the DC considers what organisations have done in the past, thereby not giving a guarantee that these characteristics will also be valid for the dynamic future.

B. Relevance of DCs to our study

The dynamic capabilities theory is a perspective that has been receiving increased interest and has evolved rapidly since the seminal work by Teece et al. (1997). The authors developed the dynamic capabilities approach to analyse the sources of wealth creation and capture by firms. Several recent works have delineated the evolution of research on dynamic capabilities (Helfat and Peteraf, 2009; Teece, 2009). According to the dynamic capabilities theory, firms need to align their resources with market needs through (1) sensing, (2) seizing, and (3) reconfiguring the activities (Teece, 2007).

Ad (1) For sensing activities it is necessary to find new opportunities; individuals must scan, learn, and interpret resources from the existing information and new data. This leads to revealing existing opportunities and creating new opportunities.

Ad (2) Seizing opportunities requires determining the appropriate business model, understanding resource needs, making decisions pertaining to investing in technology and other resources and then leading others to make the suitable changes. Due to the fact that multiple functional areas are involved, more coordination and management are necessary.

Ad (3) Reconfiguring gives a manager the ability to adapt to changing circumstances and to break out of routines.

Table 3.2 Applicability of DC framework to the study.

DC framework	Case of Financial Institutions in Uganda
Sensing	Managers and the employees in FIs in Uganda need to search for existing information and new data. Learn from their competitors globally and establish the new opportunities available to attain HPO.
Seizing	FIs need to get hold of the opportunities identified and establish a business model that is focussed on HPO. This will require investing in capabilities that are rare in human resources.
Reconfiguring	FIs management need to adapt to changing circumstances and to break out of the banking routines and may be adapting the HPO framework.

Source: Teece (2007)

Table 3.2 explains the possible applicability of the DC framework in FIs in Uganda showing that DCs are vital as they have been considered the major source for creating new knowledge capabilities needed in today's rapidly changing markets. DCs help a firm adjust its resource mix and thereby maintaining the sustainability of the firm's competitive advantage, which

otherwise might quickly disappear. DCs emphasise resource development and renewal which FIs in Uganda need to follow in order to sustain high performance. Based on the DCs theory, it can be stated that dynamic capabilities are important to organisations.

The resources in the FIs are not static, but dynamic and this causes all the changes in performance. As Collins and Smith (2006) argue, companies in dynamic industries may especially depend on the ability of a knowledge worker, such as a scientist, to combine the available knowledge; in particular, high technology institutions have to struggle with rapid changes and a turbulent environment to survive.

3.1.3 The Knowledge-Based Theory

The knowledge-based theory of the firm considers knowledge as the most strategically significant resource of the firm. Its proponents argue that because knowledge-based resources are usually difficult to imitate and socially complex, heterogeneous knowledge bases and capabilities among firms are the major determinants of sustained competitive advantage and superior corporate performance (cf. Grant, 1996; Spender, 1996; Decarolis and Deeds, 2006).The knowledge is embedded and carried through multiple entities including organisational culture and identity, policies, routines, documents, systems, and employees. Originating from the strategic management literature, this perspective builds upon and extends the RBV. Although the RBV recognises the important role of knowledge in firms that achieve a competitive advantage, proponents of the KBT argue that the RBV perspective does not go far enough (Grant, 2005).

The distinct treatment of knowledge and resources distinguishes the knowledge-based view of the firm from the resource-based view of the firm, which regards resources in a broad sense tending to include many concepts traditionally associated with knowledge (Barney, 1996). In the knowledge-based view, a resource is treated as a finite traditional stock, which must be replenished after it is depleted and which contributes to achieving competitive advantage (primarily by depriving other firms of that resource) (Wernerfelt, 1984).

By deconstructing some of the key elements of the RBV we see that it is in line with the knowledge-based view of the firm. We suggest that there are three components to knowledge management systems that influence firm performance: (1) the firm's ability to produce new knowledge, (2) its ability to build on that knowledge, and (3) its effectiveness in capturing a high proportion of the subsequent spin-offs (see Bogner and Bansal, 2007). Grant (1996) in his seminal article takes strong steps towards KBT suggesting the following four points

1. Firms apply knowledge to the production of goods and services.
2. Knowledge represents the most strategically valuable resource of a firm.

3. Individuals create and hold knowledge, not organisations.
4. Firms exist because of the high costs involved with markets attempting to coordinate the knowledge of an individual specialist.

Grant's points on why firms exist reflect earlier points contained in the RBV of the firm and in the dynamic theory discussed above. Following the knowledge-based theory of the firm by Grant (1996), Spender (1996), and Decarolis and Deeds (1999), we see that sustained competitive advantage and superior corporate performance are realised if the firm has specific assets (heterogeneous knowledge-based resources and capabilities) which are usually difficult to imitate and socially complex.

Although the knowledge-based view of the firm is an adequate approach to understanding the relationship between firm capabilities and firm performance, it has been mainly used by researchers in information systems, because information systems can be used to synthesise, enhance, and expedite large-scale intra-firm and inter-firm knowledge management (see Alavi and Leander, 2001; Wagner, 2008). Specifically, this approach suggests that *knowledge* generation, accumulation, and application may be the source of superior performance *(Marie and David, 1999;* Decarolis and Deeds, 2006*).*

As with the RBV and the DC, we consider below (A) criticisms of KBT and (B) the relevance of KBT to our study.

A. Criticisms of KBT

The KBT has characteristics which are fuzzy, soft, intangible, and organic, and cannot be easily measured which make it hard to figure out (1) what to manage and (2) how to manage it. To be readily manageable, knowledge assets need to be more visible (Holtshouse, 1998). The main criticism is that the KBT theory does not explain the nature of heterogeneous asset bases that are appropriate to different institutions in light of their goals. Moreover, for the perspective of involving the organisational level development of a KBT, the issue of the relationship between knowledge and firm performance is largely unaccounted for by this stream of the seminal article by (Grant, 1996). Subsequently, it is observed that firms have different goals and the blend or mix of knowledge bases may vary from firm to firm (Slater and Narver, 2007).

B. Relevance of KBT to our study

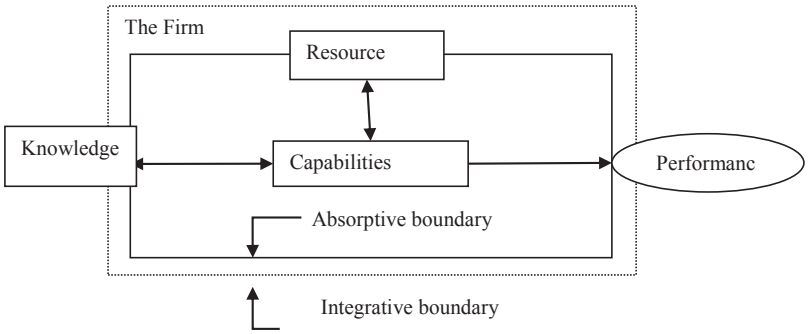
The KBT of the firm has at least four features that are particularly outstanding. First, it draws on and encompasses many of the insights developed in the behaviourally oriented firm theories, such as the interplay between action, cognition, and a shared identity of organisational members (Kogut and Zander, 1996).

Second, it adds knowledge to the group and the firm levels on the analysis of what had been a construct only at the individual level of analysis. By so doing, it puts particular emphasis on the interactions among individuals and groups for knowledge sharing and creation (such as development of routines), and ultimately the implications of such interactions for competitive advantage (Grant, 1996; see also Szulanski, 1996).

Third, it reflects an emergent understanding among managers and academics (a) that the developing economies give rise to institutions that have knowledge as their most precious asset, and that (b) these institutions may behave quite differently from the developed economies that base their business on a balanced portfolio of material and immaterial assets. The KBT of the firm provides new analytical tools and approaches for understanding such recent economy firms (Kaplan et al., 2001; Schmidt, 2010). From the observations, scholars contend that the KBT of a firm may hold great promises in strategic management. In their opinion, it has to rise beyond the somewhat undeveloped idea of "knowledge as a source of sustainable competitive advantage."

Fourth, a knowledge-based view of the firm connects well to a parallel stream of knowledge management in practice. The KBT of the firm might explain the possible implications of KM for HPO. Below we present Figure 3.1 to highlight the KBT integration in the firm.

Figure 3.1 The integrated knowledge-based view of the firm.



Adopted from Kaplan et al. (2001)

Figure 3.1 indicates that the knowledge-based view propose that a firm's unique knowledge is the key source of competitive advantage, allowing it to combine conventional resources in distinctive ways and provide superior value to customers. A knowledge strategy identifies this unique knowledge, either existing in the firm or required for a projected situation, and draft ways to develop and/or capitalize on it (Barney and Hesterly, 2010; Acur et al., 2012). The integration of the knowledge-based view of the firm process begins with *knowledge*

which is embedded within the human *resources,* the knowledge improves the *capabilities* which rest in the the individual and/or organisational openness to change and innovation and the capability or preparedness for being able to integrate it, referred to as the *absorptive boundary* of the *firm.* The knowledge resources in the firm may consequently improve the organisations *performance*. The *integrative boundary* is attained when knowledge had added value for the organisation in building its competitive advantages. In the framework of KBT, it is claimed that the only resource that provides an organisation with sustainable competitive advantages is knowledge. Nonetheless, knowledge as such will not have much value for the organisation in building its competitive advantages since only relevant knowledge can function in such a capacity. The absorptive and integrative boundary of knowledge requires effective KM by the managers to improve on their performance.

Arguments for accepting KBT

We note that the knowledge-based theory of the firm in strategic management is still a contested and unmapped area under discussion, but there are many partial contributions each of them building on its own set of assumptions, be it methodological individualism or social-psychological identity theory: the concepts and their relationships vary considerably, and no unified predictions can be made. In agreement with Kaplan et al. (2001), Carlos and Segarra (2006) contend that although there is much to be done, the knowledge-based view of the firm presents some rather important characteristics. We mention five of them.

1. The KBT of the firm presents Schumpeterianrent creation logic.
2. Organisational learning plays an important role in the sustainability of the competitive advantage considering the KBT of the firm.
3. The nature of the most important resources in the KBT of the firm is mainly intangible and dynamic.
4. The idiosyncratic intangible assets developed through path dependency and causal ambiguity are the basis of the mechanism for economic outcome creation in the KBT of the firm.
5. The KBT of the firm considers a special resource that does not depreciate, and can generate increasing returns – knowledge.

Knowledge is considered to be a rather special strategic resource that does not depreciate in the way traditional economic productive factors do, and can generate increasing returns. The nature of most knowledge-based resources is mainly intangible and dynamic, allowing for idiosyncratic development through path dependency and causal ambiguity, which are the basis of the mechanism for economic rent creation in the KBT of the firm (cf. Carlo and Segarra, 2006).

3.1.4 Our Choice of Theories to be used in the Study

We note from literature and practice, that all three theories discussed above are used to explain what influences the performance of a firm. However, their application, in particular the KBT, is not widely accepted as relevant for HPO. Below we give a summary of the contents of section 3.1 from which we distil three results for our research. Most of the issues to explain the firm's performance and measurement concentrate mainly on physical assets or hard assets and disregard invisible assets or knowledge. Still, on the basis of our discussion, we mainly consider two theories: RBV and the DC theory. Both are meant for (1) developing the *performance* indicators of HPO. However, we may investigate and thus consider integrating the RBV, the dynamic capabilities theory, and the KBT; since the combination can (2) make a *better KM base*, and may ultimately lead to HPO in financial institutions. This consideration is relevant to our study. As an aside we note that a choice of these three theories does not mean that the remaining theories such as the resource dependence theory and organisational knowledge creation are not applicable. Finally, we would like to mention that, we use the three theories for (3) *developing additional research claims* (see section 3.3). We elaborate on our choice of theories in the respective sections in which we develop our claims (see section 3.3).

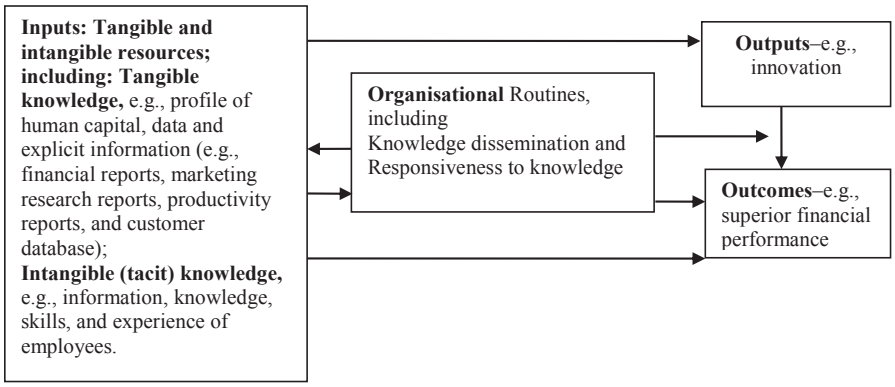
3.2 The Three Elements of the UFI Model for HPO

In this section, we present three elements of which the first two (HPO framework and KM) have used a theoretical approach to explain the envisaged performance. We bring them together with high performance to formulate the UFI model for HPO, which fits the Ugandan situation. In subsection 3.2.1 we describe the KM model and in subsection 3.2.2 Waal's HPO framework, and in subsection 3.2.3 the concept of high performance. As an addendum we describe in subsection 3.2.3 Porters competitive advantage model which is an important factor in the high performance concept.

3.2.1 The Knowledge Management Model

It is clear from the theories that KM to be effective has to satisfy specific goals. If we consider knowledge as a company resource, managing it will basically have to live up to the goals common to all resource management, i.e., taking care that the resource is: delivered at the right time, available at the right place, present in the right shape, satisfying the quality requirements, and obtained at the lowest possible costs (Wiig, 2004). One of the resultant theories used empirically to explain KM and a firm's performance is Darroch (2005). Below we present Darroch's KM model in Figure 3.2.

Figure 3.2 Darroch's KM model.



Source : Darroch (2005)

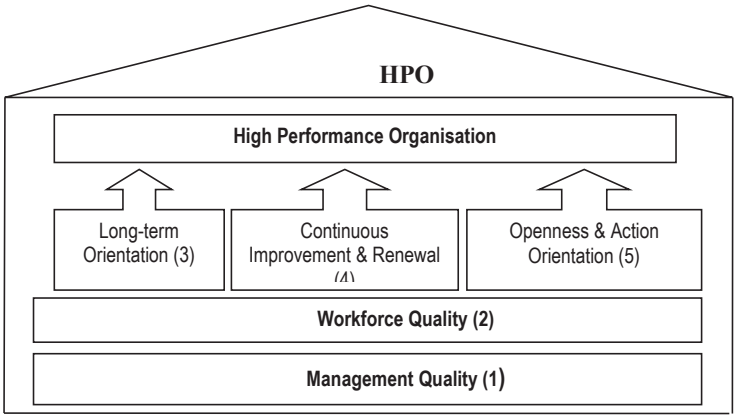
Critical analysis of the model

Figure 3.2 indicates that the model examines the role of effective KM in two ways: (1) KM supports the conversion of all other resources into capabilities and (2) KM contributes to effective innovation and performance. We note that innovation is an outcome which comes with other outputs (see right upper corner of Figure 3.2). The final outcome of Darroch's model considers only the financial aspect of superior performance (right lower corner). We believe that there is a gap in the model which we propose to fill in by including the non-financial superior performance and competitive advantage. In the UFI model for HPO, innovation is conceptualised as an outcome of a firm. It is attained as soon as the firm has achieved some level of high performance. We consider the level of high performance as a combination of common actions. We aim at developing an UFI model for HPO which has an indirect relationship that ranges from the HPO framework, the KM processes, to high performance. The indirection should have a mediating character. We propose the indirect mediation, viz. knowledge management.

3.2.2 Waal's HPO Framework

Many HPO frameworks provide invaluable information and practical tools for people engaged in leading organisational change efforts. They may be: an executive, a line manager, or HR practitioners or change agents. As stated earlier, Waal (2008) proposed a framework of five factors and thirty five characteristics (see section 2.5). By his HPO framework managers can focus on five factors to improve the performance of their organisation. For easy reading we depict the results of Waal's (2008) study in Figure 3.3.

Figure 3.3 Waal's HPO framework.



***Source*:** Waal (2008)

Critical analysis of Waal's HPO framework

In Figure 3.3,Waal's (2008)HPO framework shows five factors. The first two relate to people in terms of quality, both for the management and the employees, while the remaining three relate to their attitudes concerning the work and goal. The factors that relate to people in the framework are depicted in bold type because they are considered to have the most impact on HPO. There are many frameworks in literature (see chapter 2). Our choice is Waal's (2008) framework because the HPO framework seem to present empirically validated factors that have been tested in an earlier stage on growing economies and many industries. Yet, it is wise to state at least two different views on HPOs.

Contrary to Waal's view, Meyer and Botha (2004) suggest that HPOs should have the capacity to achieve a three dimensional target, namely by being (1) a provider of choice (creating an enthusiastic and loyal customer base); (2) an employer of choice (people would want to work there), and (3) the investor of choice (realising profits where customers are taken care of). Parker (2007) adds the following dimensions, namely (4) customer centred leadership; (5) sharing the vision with all other stakeholders; (6) continuously transforming and never being satisfied with "what is"; (7) having business processes that are closely interconnected to serve the customers seamlessly, and (8) caring. In Porter's perception, people are seen as key to the business and real-time performance feedback as an ongoing process supported by readily accessible performance information. However, we believe that excellence should be the pivotal point of the theoretical HPO, supported by renowned business excellence models (Slabbert et al., 2003; Grobler et al., 2006).

A common theme across these studies includes other studies to investigate the extent to which the HPO framework is attainable. Our study intends to consider at least Waal's five

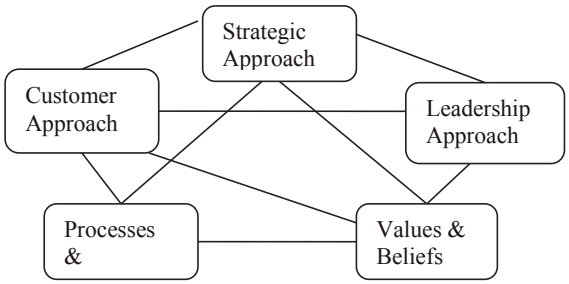
factors of HPO to obtain a more comprehensive understanding of the identified antecedents and their consequences. In our observation successful organisations are (1) transforming their internal processes, (2) paying attention to the needs of their workforce, and (3) transitioning their departments one by one to HPOs.

3.2.3 High Performance

We defined and discussed the concept of high performance in subsection 2.2.1 to a sufficient extent to use it here as the fourth constituent for our UFI model for HPO. Since our approach deviates from the American Management Association (AMA)'s approach, we show our considerations below. AMA is the international leading organisation in management training and professional development of individuals and teams. We discuss the matter here owing to the relation between high performance and high performance model. AMA's HPO model mainly stresses drivers, which may lead to high performance in Western countries, but not by definition in developing countries, such as Uganda.

The HPO model as suggested by Overholt et al. (2006) and adopted by AMA(2007), states that there are five drivers to HPO. Each driver interacts with and influences the others, creating a whole system that can adequately handle the activities in a given situation. A change to one activity creates changes in the other activities. Subsequently, the system tends to be in continual flux. The executives of the firm must know how to move their organisation forward, while balancing parts of the system. In Figure 3.4 we present the AMA HPO model.

Figure 3.4 AMA's HPO model.



Adopted from Overholt, Granell, Vicere, and Jargon (2006)

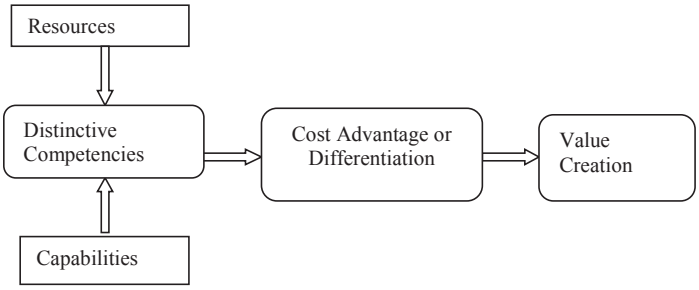
Critical analysis ofAMA's HPO model

Figure 3.4 indicates that the HPO components must work together as a system. If not, the organisations will lose their status of HPO. The literature examining high performance frameworks currently tends to characterise organisational successes by referring to both technical and financial outcomes, but not to human outcomes. Yet, the AMA HPO model emphasises insights available from the knowledge-based theory which conceives of knowledge as a strategically significant resource of an organisation. The knowledge performance is guided by criteria and measurements. Contrary to AMA's (2007) HPO model, Wijk et al. (2008) suggest that organisational performance should be associated with goal achievement, profitability, market share, and innovativeness. We have not seen these points addressed by the AMA HPO model, because their emphasis is on the system.

Competitive Advantage

There are several models of competitive advantage that have been proposed (see Rugman and Verbeke, 1998; John et al., 2006) but all of them are building on Porter's (1991) Five Forces model of competitive advantage. For our UFI model for HPO we adopt (and to some extent adapt) Porter's Five Forces. Below we present Porter's model of sustained competitive advantage in Figure 3.5.

Figure 3.5 Porter's sustainable competitive advantage model.



In Figure 3.4 Porter's model shows that competitive advantage can be divided into two basic types. (1) Cost advantage means lower cost than rivals, and (2) differentiation means the ability to differentiate and command a premium price that exceeds the extra cost of doing so. Any superior performing firm has achieved the first type of advantage, or the other or both (Porter, 1991). This is further emphasised by Prusak (1996, p.6) who says that: *"The only thing that gives an organisation a competitive edge is what it knows, how it uses what it knows, and how fast it can know something new".*

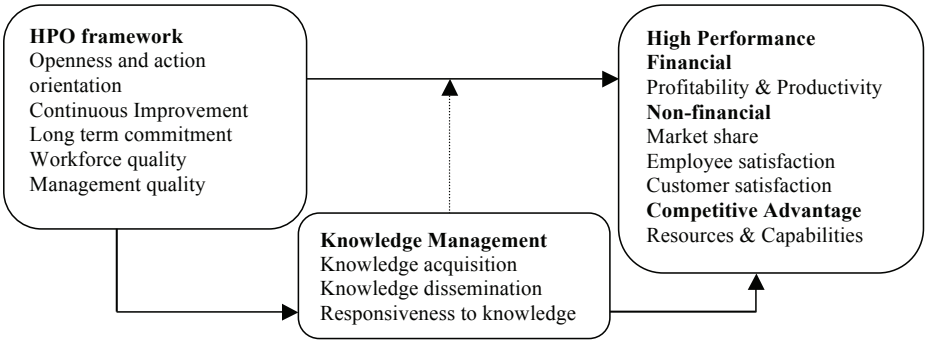
The resource-based and knowledge-based views recognise the firms' knowledge resources as their tool for achieving a sustainable competitive advantage (cf. Ordóñez de Pablos, 2004). Chong et al. (2006) argue that KM can be the best way to create a long-term sustainable competitive advantage. A sustainable competitive advantage stems from valuable, company-specific resources that cannot be imitated or substituted by competitors. The transformation from the old economy to a new, knowledge-based IT economy is driven largely by the recognition that knowledge rather than financial capital, land, or labour is the major source of continued economic growth, value, and improved standards of living. Scholars have found out that organisations that disregard the system of belief of the knowledge economy are unable to adapt in a timely manner. Hence, they are likely to die in any form or at least, become less competitive (e.g., Nonaka, 2007; Scott, 2007). This is supported by a significant body of literature which contends that institutions need to gain competitive advantage to achieve success (Khandekar and Sharma, 2005). If both the company's competitive position and the industry's attractiveness and growth rate are strong, then the company occupies a fortunate position and can be recognised as an HPO.

The RBV of the firm argues that firms exist because they have unique, often historically dependent abilities to accumulate specific resources that lead to differential levels of firm performance (see, e.g., Kaplan 2001; Barney and Clark, 2007). Most studies prior to 2008 have investigated HPO as a unidimensional construct (see Waal, 2008). Here we reiterate that our study considers high performance as the dependent variable and the financial and non-financial aspects as the major elements of prediction. However, this is not the last one, see below.

3.3 The UFI Model for HPO

The four elements discussed above are the building blocks for the proposed UFI model for HPO (Figure 3.6). The UFI model for HPO represents the concepts used to discuss the problem statement and the relationships between the four elements. The UFI model for HPO is based on research contributions from a variety of authors (e.g., the most prominent ones are: Huselid, 1995; Porter, 1998; Darroch, 2005; Jansen et al., 2006; Wijk et al., 2008; Waal, 2010); the feedback received from a preliminary study (Survey 1); and to some extent from experts who crossed our path during research. The publication by Waal (2012) led us to adapt and deepen the original model. To underpin our conceptualisation, the KBT is used to provide a strong foundation for HPO. The relationships, perceptions, and outcomes have been recognised as relevant in the literature (see Chapter 2). Below we describe them as elements of our conceptual HPO framework that will guide the study.

Figure 3.6 The UFI model for HPO.



Source: Waal (2008, 2010, 2012), Waal (2014) personal communication

The influence of Porter's Five Forces Model of Competitiveness has had a large impact on HPOs. In most studies the model was used to analyse gaining a competitive advantage as a separate player in the scene with relations to the HPO framework, the KM model, and high performance. The continuous study by Waal (2008, 2010, and 2012) of the relation between HPO framework and high performance did shed new light on the position and importance of competitiveness. Of course, competitiveness is important, but not withstanding its positive results, competitive advantage is not a player in the scene itself. It is a dependent variable of which the results belong to the domain of high performance. In figure 3.6 we have therefore included competitive advantage as an important asset of high performance, next to the financial assets and the non-financial assets as components of competitive advantage we have taken: (1) resources and capabilities and (2) customer satisfaction.

Now the UFI model is ready to be implemented and applied. We have the following four relations to be investigated in the remainder of the thesis.

1. The relation between the HPO framework and high performance.
2. The relation between the HPO framework and knowledge management.
3. The relation between knowledge management and high performance.
4. The relation between KM and "the relation between the HPO framework model and high performance" (i.e., the relation between KM and the "working" of the HPO factors).

Claims by the UFI Model for HPO

In our research we make use of claims. A claim is a first step in the answering procedure of a research question. Our claims are closely related to the research questions. Below we make four different claims. They correspond to the RQs 4 to 7; Claim 1 corresponds to RQ4, Claim 2 corresponds to RQ5: Claim 3 corresponds to RQ6: and Claim 4 corresponds to RQ7.

In the next subsections we discuss the three concepts HPO framework (3.3.1), high performance (3.3.2) and Knowledge Management (3.3.3).

At the end of 3.3.2 we are able to formulate a claim which defines the scope, direction, and goals of our investigation with respect to RQ4. This is related to Claim 1. At the end of section 3.3.3 we are able to formulate the Claims 2, 3, and 4. They are closely connected with the RQs 5, 6, and 7 respectively.

3.3.1 The HPO Framework in the UFI Model for HPO

The HPO framework has been established and empirically proved to help in the HPO creation and sustainability (Waal, 2010). The factors in the HPO framework influence the employee's behaviour which in turn designates whether the organisation is an HPO (Waal, 2004). So far,the Ugandan environment has not been exposed to the Waal's HPO framework. Therefore we argue that this might be the best practice by which the Ugandan authorities can decide to adopt the HPO framework to improve their performance. We consider the HPO framework as the most appropriate concept to achieve high performance because of its richness as established by the empirical findings of the descriptive review of 290+ studies. Although the framework has been applied in different countries, see Waal and Frijns (2011) and Waal (2012), it has not as yet been applied in Uganda to establish its robustness. Thereis a clear need for validating the link between the HPO framework and the organisational performance. We formulate claim 1on this topic at the end of 3.3.2

3.3.2 High Performance in the UFI Model for HPO

Based on research on the dimensions of organisational performance used by Combs et al. (2005) and the use of productivity and retention measures in the strategic human resource management (SHRM) literature (see Dyer and Reeves, 1995), we originally divided organisational performance measures into two dimensions: financial (productivity, profitability) and non–financial (market share, employee satisfaction). As stated above, we added competitive advantage (resources and capabilities, customer satisfaction) to it. The type of factors seems to depend on the angle of research or the personal views and interests of the researchers. Literature on the RBV and the DC provide different factors as discussed in section 3.1. They are all identified as potentially important for high performance (cf. Waal, 2010). The RBV theory is applied to explain differences in performance within an industry (Hoopes et al., 2003). For FIs in Uganda, we suggest financial, non-financial, and competitive advantage. We discuss them all three (in practice all six) briefly below.

B1. Financial: Profitability

Every firm is most concerned with its profitability. One of the most frequently used tools of the financial ratio analysis is the profitability ratio which is used to determine the company's

bottom line and the return to its investors. A profitability ratio shows a company's overall efficiency and performance. The long-term profitability of a company is vital for both the survivability of the company as well as the benefit received by shareholders. These ratios may give insight into all important profit. According to Schmalese (2004) firm performance (profits) is attributable mostly to industry effects; firm effects are considered to be insignificant. Taking into account the RBV of the firm which focusses especially on the inside of the firm, resources and capabilities explain the profit and value of the organisation (cf. Penrose, 1980; Wernerfelt, 1984; Barney, 1991; Grant, 1991; Peteraf, 1993; Makhija, 2003). Thus, we consider profitability as a predictor of HPO.

B2. Financial: Productivity

The term productivity refers to measures of the efficiency of resource use. Although the term is often applied to single factors such as workforce (labour productivity), machines, materials, energy, and capital, the productivity concept applies as well to the total number of resources used in the production of outputs. The use of an aggregate measure of overall productivity allows a determination of whether the net effect of overall changes in a process - possibly involving resources tradeoffs - is beneficial.[3]In the highly competitive globalisation era, every organisation should improve its work productivity. It is expected that by the higher productivity competitiveness, the organisation will be more profitable and have a better performance (Prasetya and Masanori, 2010). Increasing productivity is one of the most critical goals in business.

The RBV suggests that the firm is an administrative organisation and a collection of productive resources, both physical and human. Therefore, material resources, as well as human resources, can enhance a firm to provide a variety of services. The same resources can be put to use in different ways, according to the ideas of the institutions on how to apply them (Simons, 2008). In this sense, there is a close relationship between the knowledge that people in the organisation hold and the services obtained from the resources, so that firms are really repositories of knowledge (Curado and Carla, 2006). KM is considered a prerequisite for higher productivity and flexibility in both the private and the public sectors. High-performing and innovative employees are the foundation of productivity. They are by far the most impactful factor in workforce and team productivity, and in hiring and retaining employees with exceptional capabilities and self-motivation.

The speed of accumulation and assimilation of resources is the key to firm growth (Pitelis, 2007). This holds true too for opportunities arising from underutilisation of the resources. Institutions continuously search for new ways to increase productivity and efficiency. New knowledge yields new ways of using existing resources or new ways of combining sets of

3 Definition, taken from the 2007 Malcolm Baldrige National Quality Criteria for Business Excellence.

resources. The link between user perception and productivity remains unclear. The quest for direct productivity improvement has nevertheless continued and provides considerable challenges for FIs in Uganda.

B3. Non-financial: Market share

The subjective measurement of organisational performances can be used as acceptable indicators of real performance (Dawes, 1999; Deshpande et al., 2004; Devinney et al., 2005; Jing and Avery, 2008). According to the given references the measures include: market share, employee satisfaction, customer satisfaction, and innovation rate. For our study we have classified the market share and employee satisfaction under non–financial and customer satisfaction under competitive advantage. We do not discuss the innovation rate since that would make the study too broad. The existing literature further shows that market share is an essential ingredient for high performance, especially in service organisations (Overholt et al., 2007; Thomson, 2010). Firm performance is influenced by the strategies and operations in the market as well as in non-market environments (cf. Orlitzky, 2003; Bagheri et al., 2013). The findings still concur with the dated findings by Owen et al. (2001), who established that a sustainable HPO is one that is able to remain responsive to market-place expectations, and sustain the behaviours required to meet market-place expectations.

B4. Non-financial:Employee satisfaction

Employee satisfaction refers to employees who are happy and contented and who are fulfilling their desires and needs at work. It is essential for FIs in Uganda to have employees who are satisfied with their institutions' performance. An employee's behaviour and engagement is strongly influenced by the organisational performance. Employees are the main actors in organisations (Huselid and Becker, 2011). Therefore, analysing the experiences of employees will provide valuable insights into the possibilities of developing towards high performance levels. Employees who are satisfied with their institution's performance may willingly acquire, disseminate, use and reuse knowledge, gain confidence, and become committed to improving their service. Employees also play a crucial role in creating the right KM resource; they have the knowledge in their heads and should be encouraged to innovate products (Chuang, 2004).

B5. Non-financial: Customer Satisfaction

Customer satisfaction is defined as "the number of customers, or percentage of total customers, whose reported experience with a firm, its products, or its services (ratings) exceeds specified satisfaction goals (Farris et al., 2010). Customer satisfaction provides a leading indicator of consumer purchase intentions and loyalty. It is seen as a key performance indicator within business and is often part of a Balanced Scorecard. In a competitive market place where businesses compete for customers, customer satisfaction is seen as a key

differentiator and increasingly has become a key element of business strategy (Gitman et al., 2005). Although customer satisfaction is important in HPOs we did not consider it as a variable of study because (1) it was out of our scope (the employees) as service providers and (2) it was already difficult to compare the non-financial performances of HPOs against its peer groups. However, several HPO studies provide indications that HPOs generally have higher customer satisfaction, higher customer loyalty, and higher employee satisfaction, higher quality, fewer complaints, more innovative products and service, and a better reputation than non-HPOs. Therefore, we decided to include customer satisfaction as a factor in the high performance list.

B6. Competitive Advantage: Resources and Capabilities

Studies that have been carried out so far show a positive relationship between KM, competitive advantage, and firm performance (cf. Davenport, Prusak, 1998; Kalling, 2003; Chong et al., 2006). RBV focusses on the firm, as opposed to the industry, and explains differences in a firm's competitive position with heterogeneity among institutions, thereby explaining sustained competitive advantage through resources controlled by a firm (cf. Wagner and Weitzel, 2007). Berdine et al. (2008) suggest that competitive advantage is a superiority gained by an organisation when it can provide the same value as its competitors but at a lower price, or can charge higher prices by providing greater value through differentiation. Drawing from the DC theory, competitive advantage results from matching core competencies to opportunities (Berdine et al., 2008). In line with the DC theory, the most appropriate strategy for superior companies is to exploit their employee's competencies and protect themselves against new competitors entering the industry. Most of the FIs in Uganda have not yet attained the competitive advantage as suggested by Berdine et al. (2008).However, due to the commercialisation of the industry, there is stiff competition that never existed before in the FIs (cf. Kamukama, 2010).

The FIs need a competitive edge to survive in this environment. The pressure to survive has made organisations realise that they must seek some form of competitive advantage from every part of the organisation, which must include the costs of running the working environment. Accordingly, organisations seek to improve their competitiveness by introducing KM (cf. Pathirage et al., 2008; Huang et al., 2010). Literature on KM has confirmed that, both academic and practitioner communities agree that any properly designed and implemented KM strategy has the potential to impact performance positively and afford a competitive advantage to a business (Oppong et al., 2005; Robles-Flores and Kulkarni, 2006).

All organisations face the risk of losing knowledge in a world of layoffs, retirements, staff turnover, mergers, and acquisitions which could affect their sustained competitive advantage (Martins and Meyer, 2011). The FIs in Uganda have been in a similar situation for the last decade. Therefore, effective KM is becoming a critical factor for organisations seeking to

ensure sustainable competitive advantage. The HPO framework increased an organisation's competitive advantage (Waal, 2011), and together they can lead an organisation to HPO. Therefore, we claim that competitive advantage being one of the key determinants of superior performance and the ultimate goal of many organisations is considered an indicator of high performance.

As a direct consequence of the content of the subsections 3.3.1 are 3.3.2 we formulate the following claim.

Claim1: There is a positive relationship between the HPO framework and high performance in FIs in Uganda.

Based on claim 1 we believe that in order to face the future with confidence, it is worthwhile for companies to improve themselves in the direction of high performance.

3.3.3 Knowledge Management in the UFI Model for HPO

Knowledge management refers to the processes and practices through which organisations generate value from knowledge. In the UFI Model for HPO, we distinguish three KM processes: (1) knowledge acquisition, (2) knowledge dissemination, and (3) responsiveness to knowledge. They are human-related processes identified from the existing literature (see Chapter 2). They are important for the investigation of KM practices among FIs in the service sector in Uganda.

According to Rosenberg (1968), a relationship study that does not address the mediating mechanism ends up with facts that allow an incomplete understanding. In the same vein, Bennet (2000) argues that a study that fails to consider the possibility of a mediator effect in the data may miss many explanations for an outcome. Additionally, Fredrick (1982) asserted that exploring the mediating effect of variables in the relationship spells out (1) the nature of the relationship and (2) the extent to which the connection between the two variables is influenced by the mediating variable. In our study, the KM processes were considered to mediate the relationship between the HPO framework and high performance.

C1. The HPO Framework and Knowledge management

Literature has established that KM in terms of management philosophy, organisational activities, and technological methods, has widely permeated the business world (Adreeva and Kianto, 2012). The HPO framework is a validated analysis of what makes an organisation excellent. The financial institutions in the recent past experience the financial crisis which destroyed the traditional values. Therefore, FIs have to redefine what has to be done to compete and win in the global environment. To succeed in this new environment, FIs need to answer some critical questions such as how is the structure of the financial services industry

evolving? and what new business models are emerging? Despite the fact that the FIs use the same procedures, processes, and systems and offer the same products and services and operate in the same business environment, they achieve different returns (Huselid and Becker, 2011). The HPO framework seems to be the new business model that can relate to the existing knowledge on the structures to help FIs with a strong wish to excel. The HPO factor openness and action orientation propose that employees in HPOs spend much time on communication, knowledge exchange, and learning (Waal, 2012). This is an indication that there is a relationship between the HPO framework and KM. Therefore, in an emerging market like Uganda, it would not be prudent for our study to examine the influence of the HPO framework in isolation of the KM activities within the FIs. Based on the discussion we formulate claim 2.

Claim 2: There is a positive relationship between the HPO framework and knowledge management in FIs in Uganda.

C2. Knowledge management and High performance

The relevance of knowledge and its effective and efficient management for organisational performance seems to be a widely accepted issue in most of current management literature (Adreeva and Kianto, 2012). One of the goals of the emerging organisational KM is to achieve the objective of being multipurpose. As a result, we know a great deal about the ways in which knowledge is managed, and what is or might be perceived as such. However, despite the growing body of theory, there are relatively few KM studies that make an explicit connection between knowledge and performance (Kalling, 2003; Lee et al., 2012).

This study proposes that a firm with access to a larger collection of knowledge will have a better developed knowledge dissemination and responsiveness to knowledge practices. Correspondingly, a firm with better developed knowledge dissemination behaviours and practices will be more responsive to knowledge. We argue that FIs in Uganda need to acquire knowledge from foreign-owned banks, disseminate their knowledge amongst themselves, and respond positively to the knowledge so that they are be able to attain a "superior" performance (in the longer run).

According to Lyles and Salk (2007) there is a relationship between knowledge acquisition and performance. An observation by Droge et al. (2003) is that empirical research does not always support the claimed positive effect of knowledge on performance. Here, it should be noted that the acquisition of new knowledge has an anecdotal positive effect on high performance. An organisation creates knowledge through the dissemination processes which then influence the outcomes, such as the organisational performance (cf. Darroch, 2005). Drawing on the KTB, we view competitive advantage as a process that promotes knowledge acquisition (Wagner, 2009) and is essential in determining improved performance. Knowledge dissemination creates opportunities to maximise the organisations' ability to

meet their needs and generate solutions and efficiencies that provide a business with a competitive advantage (Reid, 2003; Lin, 2007).

The continuous dissemination and application of knowledge facilitate knowledge retention within the organisation, followed by the completion of the assignments. Thereafter, the knowledge could be applied and modified in subsequent projects (Ebgu, 2004; Muhenda et al., 2008). Despite the fact that human knowledge may be an organisation's most valuable asset, much of this knowledge is never shared (Harris, 2006). This is the major challenge that most Ugandan FIs are facing, viz. lack of proper knowledge dissemination. Collins and Smith (2006) reported that the organisation's social climate (1) drives knowledge exchange among workers, (2) impacts on the knowledge creation, and (3) establishes the firm's performance. Most of the FIs in Uganda have many branches country wide. The dispersion makes it necessary to find out what is already known elsewhere to avoid "reinventing the wheel" in their focus to improve performance. At the end of our discussion the following claim is formulated.

Claim 3: There is a positive relationship between KM and high performance in the FIs in Uganda.

C3. KM processes mediate the relationship between the HPO framework and performance

A review of literature reveals that studies examining the association between KM and a high performance organisation are divergent in how they conceptualise key constructs and their inter-relationships. Our study is guided by the conceptualisation that high performance in FIs is predicted by the HPO framework and the KM processes which cover knowledge acquisition, knowledge dissemination, and responsiveness to knowledge. These are processes that naturally exist in organisations.

Knowledge is acquired within the organisation, from external sources and by creating new knowledge from the already existing information. This new knowledge must be able to create new ideas, recognise new patterns, and must be embedded in new products and services in order to create value to the institutions. Thus, organisations create, protect, and retain for their own use the outcomes (or 'rents') that arise from utilising knowledge (Kong, 2008).Employees are in turn co-opted in this enterprise, and are rewarded according to their contribution to the collective effort of generating productive knowledge.

Knowledge is disseminated across organisations through the mobility of people (see Singh, 2006). To disseminate knowledge needs setting up systems of job rotation as a pre-established plan. After each rotation, the person makes suggestions in the form of knowledge dissemination. Among other benefits, this may lead to reduction in employee turnover. Knowledge dissemination within the organisation also leads to significant business

advantages, in that successful organisations take greater advantage of the knowledge they possess than others (Egan et al., 2004).

Knowledge is considered to be a special strategic resource that does not depreciate assets in the way traditional economic productive factors do. The knowledge resource is appreciated by its use and is therefore a vital resource for the organisation to attain HPO. Knowledge is continuously exploited in human activities. Often knowledge is developed as a sign of progress, through accumulated experience (cf. Kalling, 2003). Only firms participating in the creation and utilisation of knowledge can hope to enjoy the rewards of a business reform in today's knowledge-based economy (Hung et al., 2005).

Drawing from the theories addressing the role of knowledge and its management in organisational performance i.e., the RBV and the KBV, both take their starting point in the assumption that competitiveness of the firm is not directly related to its product or market position in relation to external competitors but to its internal characteristics that we have referred to as the HPO framework. Literature has further established that in an HPO, the management values the opinion of employees by frequently having dialogues with them and involving them in all important business and organisation processes (Waal, 2012). Grant (2005) further, argues that much of the current thinking about resources and capabilities has been shaped by the interest in KM. Thus the important focus of KBV is how knowledge resources are utilised and coordinated in an organisation which is KM. Organisational knowledge is vital for developing a wide range of organisational and employee activities and is a basis for sustained high performance (cf. Bogner and Bansal, 2007). Based on this discussion we formulate claim 4.

Claim 4: There is a significant positive mediation effect of knowledge management on the relationship between the HPO framework and high performance in FIs in Uganda.

3.4 Methodological Implications of the UFI Model for HPO

The methodological implications of the HPO framework are twofold: (1) a variety of instruments with differing characteristics is available to researchers interested in organisational performance, and (2) instruments have their limitations in terms of their scope, ease of use, or scientific properties. For the classification of our study, two quantifiable tools have been used to measure organisational performances which are the typological approach and the dimensional approach. Several scholars have conceptualised KM and HPO as a multidimensional construct. Though, there is little agreement on the precise definition of a high performance organisation as a concept (cf. Kaliprasad, 2006) there is crucial to be specific on its measurement. The choice of instrument should be determined by how an HPO is conceptualised by the researcher, the purpose of the investigation, intended use of the results and availability of resources (cf. Scott et al., 2003; Sackmann, 2006; Posthuma,

et al., 2013). For the purpose of measuring organisational performance, the study reviewed the instruments of (1) the typological approach and (2) the dimensional approach including (a) a competing values framework, (b) organisational ideology questionnaire, and (c) organisational practices questionnaire, (d) an organisational profile, and (e) an organisational survey and organisational factors as summarised in Table 3.3.

Table 3.3 Dimensional approach categorisation.

Approach	Researcher	Instrument
Typological	Dyer and Reeves (1995) and Huselid (1995)	Categorised productivity and retention measures as operational performance and accounting returns, growth, market returns, and those multidimensional measures that did not include an operational component as financial performance measures.
	Ittner (2008)	Performance is to distinguish between financial and non-financial performance.
	Fraquelli and Vannoni (2000), Crabtree and DeBusk (2008)	The financial performance is often measured using traditional accounting KPIs such as ROA, ROS, EBIT, Sales growth.
	Hyvönen (2007)	Non-financial performance can be measured using operational market share, innovation rate or customer satisfaction are prominent examples.
Dimensional	Dyer and Reeves (1995)	Productivity and retention measures.
	Combs, Crook, & Shook (2005)	Divided organisational performance measures into five dimensions: productivity, retention, accounting returns, growth, and market returns.
	Waal (2008, 2010)	Divided high performance measures into five factors: management quality, workforce quality, long-term orientation, continuous improvement, and openness and action orientation.

Source: Literature review

In Table 3.3 we see the other way to characterise performance, viz. by distinguishing between financial and non-financial performance (cf. Ittner, 2008). The financial performance is often measured using traditional accounting key performance indicators (KPIs) such as ROA, ROS, EBIT, and sales growth (Fraquelli and Vannoni, 2000; Crabtree and DeBusk, 2008). The advantage of these measurements is their general availability, since every profit-oriented organisation produces these figures for the yearly financial reporting (Chenhall and Langfield-Smith, 2007). However, balance sheet manipulations and choices of accounting methods may also lead to values that allow only limited comparability of the financial strength of companies.

The non-financial performance can be measured using, e.g., customer satisfaction, innovation rate, and market share (Hyvönen, 2007). Tangen (2003) provided an overview of frequently used performance measures. Many researchers also use self-reported measures to operationalise performance (Evans, 2004; Henri, 2006; Ittner and Larcker, 2009). Others combine both, the accounted financial KPIs and the self-reported measures in their reports

(Cadez and Guilding, 2008). In the recent past, Langfield-Smith (1997) and Kihn, (2010) mentioned that there are various ways to measure non-financial performance however, the performance cannot be measured without the connection to the business strategy.

According to Carton (2004), prior empirical research has shown that these variables measure different and statistically distinct dimensions of performance. The profitability dimension includes accounting measures and ratios that incorporate net income or a component of net income, such as operating income or earnings before taxes. The operational dimension includes measures of performance that deal with how the organisation is developing on non-financial issues, such as market share, patents received, and stakeholder performance. Further, no single measure or group of measures of overall HPO has merged as actually representing the construct. This may be because no one-dimensional performance construct is devisable or because no one has adequately identified or described the dimensions on which such a construct could be based. The instrument development and measures are further discussed in Chapter 4.

3.5 Answer to Research Question 1

This chapter aimed at providing an answer to *RQ1: What are the theories applicable to understanding KM practices and HPO in FIs?*

The answer is as follows.

From the literature review, we may conclude that no single theory can be applied by the managers to improve the FIs performance. However, the appropriate combined use of RBV and the DC theories may help the FI manager to improve on the institution's performance towards HPO. The KBT may be useful in explaining a sustained high performance. Therefore, to introduce the HPO framework, to understand the KM practices and high performance in Uganda, we need a combination of the three theories. The FIs can then deploy or share resources, activities, and skills across the industry applicable to understanding KM and high performance in FIs.

3.6 Chapter Conclusion

In this chapter, we have (1) presented the UFI Model for HPO, (2) discussed the relationships among different concepts in the model, and (3) developed four claims for the suggested relationships. From the above discussion, we conclude that in order for FIs in Uganda to improve their performance to HPO they need to pay attention to fourteen relational concepts, namely (1) five from Waal's HPO framework (management quality, workforce quality, openness and action orientation, continuous improvement, long term commitment), (2) three from the KM model (knowledge acquisition, dissemination, and responsiveness to knowledge) (3) two from financial high performance (profitability and productivity),

and (4) three from non-financial performance (market share, employee satisfaction, and customer satisfaction), and (5) one from competitive advantage (capabilities and resource). We note that there is an extensive amount of literature about superior performance, but a solid theory of HPO is yet to emerge. Although Waal (2012) has come up with the HPO framework which is a conceptual, scientifically validated structure which practitioners can use for deciding what to do to improve organisational performance and make it sustainable.

CHAPTER FOUR

Research Methodology

4.0 Research Methodology

This chapter elaborates upon the brief overview in section 1.7 of this study. It consists of eleven sections. Section 4.1 presents the research philosophy. The research approach is presented in section 4.2. We discuss our choice of strategy in section 4.3. We then describe the data collection procedures in section 4.4. We discuss the data-collection methods in section 4.5. This is followed by the measurement of the key concepts in section 4.6. We discuss the validity and reliability of our instruments in section 4.7. In section 4.8, we discuss the data processing and analysis. In section 4.9, we explain the ethical issues. The limitations of the study are provided in section 4.10, and section 4.11 provides the chapter conclusions.

4.1 Research Philosophy

The philosophy of our study is based on the fact that research being a human action, is grounded in philosophical perspectives (cf. Amaratunga and Baldry, 2001). It is therefore useful to understand the philosophical positioning of our research to help us appreciate alternative designs and methods, and to identify the most relevant methodological design(s) and method(s) for the study at hand. Crotty (2007) suggests three general sociological theories: positivism, interpretivism, and realism theory. First, the positivism theory is based on the epistemology where objective reality exists. This is normally used in natural sciences. Second, the interpretive theory is based on the subjective lens of the researcher's perspective and experience. The advocates of the interpretivism view argue that generalising cannot be done in social sciences because human beings behave in different ways, depending on the situation they are facing. Third, realism theory argues that: "the essence of realism is that what the senses show us as reality is the truth; that objects have an existence independent of the human mind" (Saunders et al., 2009, p.114).

Basically, the building blocks of one's view on reality and its being are called *ontology,* and the view of how one acquires knowledge is termed *epistemology*. Ontology is the starting point which will likely lead to the UFI Model for HPO, because ontology will help us establish the kind of knowledge that is valid and how we can make sense of its existence or reality. In agreement with Crotty, Creswell (2008) stated that "the design of any research study begins with the selection of a topic and a research methodology". He also mentions three orientations to research: post-positivist research (quantitative), interpretive research (qualitative), and critical research (critical theory). Every research tradition makes four key assumptions: ontology (nature of reality), epistemology (knowledge), axiology (role of values), and methodology (research strategies). Positivist and constructivist ontology underlie quantitative and qualitative methods, respectively (cf. Nemani and Creason, 2009).

In the philosophy of science, there is a clear dichotomy between the positivism approach and the anti-positivism approach towards research. Positivism, among other things, is about searching for causal explanations. It reduces the whole into its simplest possible elements

to facilitate analysis (cf. Easterby-Smith, 1991). Positivists rely mostly on quantitative methods. Post-positivists rely on narratives and case studies in which we see a variety of skills, particularly in the statistical descriptions. Anti-positivists (sometimes referred to as realists or interpretivists) are proponents of qualitative research (see Schurr, 2007). They understand reality as socially constructed rather than objectively determined. Quantitative research is collecting, analysing, and interpreting data by observing what people do and say. Qualitative research refers to the meanings, concepts, definitions, characteristics, metaphors, symbols, and descriptions of things.

The research design should constitute a logical sequence that connects the empirical data to a study's initial research questions and ultimately to its conclusions (cf. Yin, 2009). The dominant research philosophy is empiricism, where the researcher will rely on the philosophical attitude of the natural scientists, that is, "working with an observable social reality and that the end product of such research can be like generalisations similar to those produced by the physical and natural scientists" (see Remenyi et al., 1998, p.32).

Having considered the debate on the different research philosophies, we adopted a mixed philosophy, viz. a combination of the positivism and interpretivism philosophy. With the mixed philosopy, we would be able to address the questions of our study. In the next section, we discuss our choice of research approach.

4.2 Research Approach

Scholars disagree about the name, the order, and the nature of research approaches. Saunders et al. (2009) categorise research into six stages in his "research onion", and Crotty (2007) suggests four. However, we confine ourselves to two research approaches that are well recognised in the literature. These are the *deductive* and *inductive* approach (see Saunders et al., 2009). According to Neuman (2006, p.59), the deductive approach is "an approach to developing or confirming a theory that begins with abstract concepts and theoretical relationships and works toward more concrete empirical evidence". For Young (2009) the quantitative design is suitable for constructing structural models through multivariate analysis that explain the study variables. In contrast, the inductive approach is "an approach to developing or confirming a theory that begins with concrete empirical evidence and works toward more abstract concepts and theoretical relationships" (cf. Neuman, 2006, p.60).

Creswell (2008) as cited in Saunders et al. (2009) suggests that the *nature* of research is one of the important criteria that can guide a researcher in choosing the research approach to adopt. In our study, there is (1) a well recognised body of literature on KM, and (2) quite some evidence of its use among organisations in the Western world. This guides us to adopt the deductive approach. However, the environment in developing countries is different. KM

practices in developing countries and HPOs are limited in the literature, especially in the literature on FIs, i.e., they are still in their infancy. Therefore, some inductive approach is necessary to come to fruitful results.

The use of both qualitative and quantitative approaches is considered beneficial in that the findings can be integrated to overcome the inherent weaknesses of each approach. So, next to a mixed philosophy (section 4.1) we also use a mixed research approach. In doing so the conclusions drawn from analysing the data could be grounded more strongly. A clear advantage is that the results of the mixed approach from one method derived from a philosophy can help develop or inform the other philosophical perspective. It also allows research to be conducted using both open and closed ended questions (see Berdine et al., 2008). The adopted mixed research approach is in line with recent developments in which social science researchers are increasingly advocating for methodological triangulation, that is, a combination of both qualitative and quantitative research methods which draw conclusions and make inferences from several data sources, using different methods, investigators, and theories (cf. Ibeh, 2003; Rossman and Rallis, 2003; Creswell, 2008). Below we define the concept of triangulation.

Definition 4.1 Triangulation

Triangulation is the use of different techniques of data collection within the same study in order to increase the strength of the results obtained from the study. (Saunders et al., 2009)

4.3 Research Strategy

There is a variety of research strategies that can be used in our research (cf. Creswell, 2008). For instance, in the application of triangulation, both qualitative and quantitative data are collected concurrently and the results of the two methods are usually integrated during the interpretation phase (Creswell, 2008). In order to collect the required data and answer the research questions, we use the mixed research strategy because of (1) the different purposes it can be used for (see Saunders et al., 2009) and (2) its ability to triangulate results (see Creswell, 2008). We therefore discuss below three strategies that we consider relevant to our study. These are: the *archival research case study* presented in subsection 4.3.1, the s*urvey* in subsection 4.3.2, and the *case study* in subsection 4.3.3.

4.3.1 Strategy 1: Archival Research

According to Saunders et al. (2009) “archival research makes use of administrative records and documents as the principal source of data”. It is important to note that an archival research strategy should not be confused with a secondary data analysis. For a proper distinction, it is essential to note that the archival data is originally collected for a different

purpose. When the data, e.g., stored for an administration process, are used by an archival research strategy, they are analysed as elements that are a product of day-to-day activities (Hakim, 2000). They are, therefore, part of the reality being studied rather than having been collected originally as data for research purposes. The archival strategy allows us to answer questions focussed upon in the past and relevant for the changes overtime. In this way, we are able to explore and explain the performance levels of the FIs. In contrast, secondary data is data that already exists (Glaser, 1963). Consequently, the secondary data analyst is not involved in the recruitment of participants or in the collection of the data. Heaton (2004) defines secondary data analysis as "a research strategy which makes use of pre-existing quantitative data or pre-existing qualitative data for the purposes of investigating new questions or verifying previous studies" (p. 16).

4.3.2 Strategy 2: Survey

The survey strategy is used to test the UFI Model for HPO (see Figure 3.6), which proposes relationships between (a) the HPO framework, (b) knowledge management, and (c) high performance. A survey enables a researcher to collect data from a large number of respondents (Saunders et al., 2009) which ultimately increases the validity of the study. The survey is mainly substantiated by questionnaires. Below we describe two general characteristics: (A) study population and (B) sampling technique.

A. Study population

The study population include FIs supervised by the Bank of Uganda (FIs will be further discussed in detail in Chapter 5). We selected FIs since they satisfy the following three criteria: (1) they have a large knowledge base, (2) are competitive in nature, and (3) for them it is easier to build knowledge-concentrated groups (i.e., groups made up of members who have specialised knowledge on FIs) than in other economic sectors. With respect to the surveys, a number of researchers (e.g., Podsakoff, Mackenzie & Yeon Lee, 2003; Elenkov et al., 2005; Jung et al., 2008) suggest that respondents for independent and dependent variables should be different in order to avoid self report and self evaluation that can result in a method bias (i.e., a common method bias using the same population). The common method bias was addressed in order to reduce the measurement error (i.e., random and systematic errors) which normally threatens the validity and conclusions about the relationships between measures (Podsakoff et al., 2003).

The measurement error, caused by the consistency motif (Johns, 1994; Podsakoff & Organ, 1986) or the consistency effect (Salancik & Pfeffer, 1997), was addressed in this study by (i) collecting data from at least sixteen managers from the FIs and (ii) correcting most of the data tha are related to the dependent variable (performance) from administering the survey questionnaire to employees of FIs. This approach is supported by Podsakoff et al. (2003) who contend that one way of controlling the common method variance is to collect the measures

of both predictor and criterion variables from different sources. This approach, therefore, made it impossible for the minor set of the source to bias the observed relationship between the predictor and criterion variable, thus eliminating the effects of (a) consistency motif, (b) social desirability tendencies and (c) responding in a lenient manner (Podsakoff et al., 2003).

B. Sampling technique

For sampling the responding entities, we used the table of sample size determination as displayed in Krejcie and Morgan (1970) and Sekaran (2008). In our procedure we selected twenty eight (28) FIs in Uganda based on the following two criteria: (1) the FIs should have existed for five to ten years (see our definition 1), and (2) each FI is registered with the Bank of Uganda as a bank which is a pre-requisite to operate in the Country. The twenty-eight were selected out of thirty one FIs which exist in Uganda. The FIs have their headquarters located in the district of Kampala,[4] and have branches in different districts of the country. The districts of Kampala, Wakiso, Entebbe, and Mukono all located in central Uganda (see Appendix R) were selected. These four districts are the districts which have the highest concentration of FIs.

In order to gather relevant information about the FIs, we examined many sampling techniques on their entities to be used (cf. Sanders et al., 2009). After a thorough examination, we decided to take into account: organisations, individuals, and knowledge. For these three groups we searched for an appropriate set of sampling techniques. We arrived at three techniques applicable for our study, viz. (B1) disproportionate stratified sampling, (B2) purposive sampling, and (B3) snowball sampling, respectively. Below we provide a brief description of the three sampling techniques.

B1. Disproportionate stratified sampling

Disproportionate stratified sampling is a probability sampling technique in which each stratum's size is not proportionate to the stratum's share of the population (cf. Cooper and Schindler, 2008). It was used to select the FIs. The FIs are categorised by BoU into 4 tiers: (1) Commercial banks, (2) Credit and Finance companies, (3) Microfinance Deposit-taking Institutions (MDIs), and (4) institutions not regulated by the BoU (Investment banks and Stock brokers, Development Banks). We considered each tier as research stratum; thus we selected (a) the commercial banks, and (b) the micro finance deposit-taking institutions (MDI's). The choice was based on (i) the provision of uniformity of objectives of the institutions and (ii) the strata that had larger numbers of operating institutions. The disproportionate stratified sampling technique was preferred because we had to combine the strata's to get the basic scientifically recommended sample for the study.

4 Kampala is the capital city of Uganda and the central district.

B2. Purposive sampling

Purposive sampling is one of the forms of non-probalility sampling in which the researcher selects "sample members to conform to some criterion" (cf. Lincoln and Guba, 1985; Spiggle, 1994). The purposive sampling technique ensures the quality of data and ensures that the appropriate individual in the business actually completes the survey. Purposive sampling was used to select 10 to 20 employees that were suitable for our purpose, i.e., these were employees at the level of banking officer and above. They had to have a qualification of a professional degree, showing their minimum level of education. They are assumed to have the appropriate knowledge at their disposal that would enable us to find answers to the research questions.

B3. Snowball sampling

Snowball sampling is a non-probabilistic sampling procedure in which subsequent participants are referred to by current sample elements (Plumner, 2001; Byrne, 2004). It was used for acquiring relevant knowledge on the FIs. The question was how to select the appropriate managers. Thus, we searched for respondents at a management level in their institutions, who are considered quite knowledgeable for our research, as they are more likely to be aware of the institutions' KM capabilities. The respondents were managers holding responsibilities at middle and higher occupational levels within the FIs. Below we define the concept of a manager (4.2) and an employee (4.3).

Definition 4.2 Manager

"Manager means an officer of a financial institution empowered to control, direct, and influence decision-making of the institution". (BoU, 2010)

Definition 4.3 Employee

One employed by the bank usually for wages or salary and in a position below the executive level, and deals directly with most customers.

As argued by Uys and Puttergill (2003), the size of the sample is proportional to the size of the population. To establish the sample size needed we followed Kregcie and Morgan (1970) table of sample determination. The sample ratio of a small population of 1,000 according to Neuman (2000) estimates it at about 30%. However, Martins and Meyer (2011) suggest that for a high degree of accuracy a sample of 300 respondents is required. Nonetheless, Brink (2006) states that there are no prescriptions for an adequate sample size, but the larger the sample size, the better the statistical power is in the analysis. For our study we based our sample selection on Martins and Meyer (2011), and therefore, a sample of 300 was considered for the employees.

To determine the sample for the managers we used the snowball sampling technique to select managers who were willing to participate in the study. The point of saturation was achieved after sixteen managers were interviewed. This was the point at which the analysis of additional interviews would only lead to aspects that had already been mentioned in previous conversations and did not result in new findings (see also Creswell, 2008). Therefore, sixteen managers were considered as our sample for the study

4.3.3 Strategy 3: Case study

A case study is a systematic inquiry into an event or a set of related events with the aim to describe and explain the phenomenon of interest (Bromley, 1990). The unit of analysis can vary from an individual to a corporation. Data comes largely from documentation, archival records, interviews, direct observations, participant observation, and physical artifacts (Yin, 2009). For our study we developed two cases based on the tiers of the FIs used in the sample. Case 1 was composed of commercial banks and case 2 was for the Microfinance deposit-taking institutions (MDIs). We used the interviews as a source of data for our case studies. This strategy has been adopted for this study because of its ability (1) to examine contemporary events within their real-life context and (2) to utilise multiple sources of evidence thus enabling triangulation to take place (cf. Yin, 2009). Since the HPO is a relatively new concept in the strategic human resource field, it required us to obtain views from respondents in a real-life context. In addition, little is known about KM practices, since Uganda is not yet a knowledge economy (cf. Turyasingura, 2011). The case studies enabled us to obtain insights into how KM is practiced in the FIs and into the steps the institutions are taking towards HPOs. The case study is mostly substantiated by in-depth interviews. More details are given in Chapter 6 and Appendix E.

Our case studies are exploratory and explanatory. The exploratory facet is one that mainly focusses on “what” questions (Yin, 2009). The purpose is to find out what is happening and to assess the phenomenon under investigation in a new environment. The exploratory facet enables us to identify (1) the KM practices used by the FIs in Uganda, and (2) to explore whether there are any significant differences in the way FIs employ KM strategies to improve their performance. In contrast, the explanatory studies look for the “how” and “why” questions (Yin, 2009).

Next to answering the ‘what’ question, exploratory studies seek to establish the causal relationships between variables. Some of the research questions to be addressed in our study are ‘how’ and ‘why’ questions, thus necessitating the adoption of the explanatory part of the study. This can be an explanatory case study in itself. The explanatory facet helped us to explain (1) the extent to which existing theories of KM and HPO are suitable for explaining KM practices and high performance in FIs in Uganda, (2) how the KM practices influence the performance of FIs, and (3) the influence of the HPO framework on the relationship

between KM and high performance. The explanatory facet also helped us to validate the UFI Model for HPO.

Below we explain the differences and relations between (A) Sources of data, (B) Primary data sources, and (C) Secondary data sources.

A. Sources of data

Sources of data are characterised by the origin of the data. Data is collected from both primary and secondary data sources.

B. Primary data sources

Primary data sources are defined by their way of collecting data. The primary data sources for the case studies are the semi-structured interviews conducted by us with managers of the FIs (see Appendix D). For the survey they are questionnaires. The questionnaire was distributed to selected employees of the FIs (see appendices B and C).

C. Secondary data sources

The secondary data are, e.g., provided by the annual balance sheets and income statements of the FIs. From the archives of (1) BoU, (2) MoFPED, and (3) UBOS, we collected the audited financial statements of the FIs in Uganda for the financial years 2009-2013. We limited our scope to 5 years in accordance with our definition of HPO (see subsection 1.1.2). The remaining secondary data was generated by reviewing the literature on FIs and the relevant published documents on FIs in Uganda.

4.4 Data Collection Processes

We collected both primary and secondary data for our study. Our data collection process consisted of three main activities. They are financial statements in archival data related to Survey 1(4.4.1), Questionnaires related to Survey 2 (4.4.2), Questionnaires related to Survey 3 (4.4.3), and interviews related to case studies (4.4.4).

4.4.1 Financial Statements in the Archival Data

The process of collecting archival data included sending a letter from the researcher's institution MUBS requesting for the financial statements from the FIs chief accountant who is the custodian of the archives. The purpose was to establish the levels of performance in Uganda's FIs. Exploratory Survey 1 (see subsection 1.7.2, research strategy). The chief accountant availed the statements for five years (2009 up to 2013). We then computed the ratios that were in line with our questions. The population and sample at the time of study was 7 commercial banks and 3 MDIs. The sample considered the largest categories (tiers)

of that time. The documents came from the following organisations: Ministry of Planning, Finance and Economic Development[5] (MoPFED), the Uganda Bureau of Statistics (UBOS), Uganda Institute of Banking and Financial Services (UIBFS), BoU, the individual FIs, and The New Vision newspaper [6] (see Appendices H and G). The results are presented as Survey 1 in Chapter 5.

4.4.2 Questionnaires for Survey 2

Survey 2: was an exploratory survey where we administered Questionnaire 1 to 50 employees of the sampled FIs (10 institutions) who were willing to participate in the study. They should be at the level of banking officer[7]directly responsible for banking activities. They were employees in the department of human resources, operations, and finances. All respondents surveyed had worked with FIs for more than two years. This means that they had sufficient knowledge to comment on the issues under consideration. Survey 2 was carried out with the objective of trying to understand better the concepts of our study and to explore the financial sector. The cross-sectional design was chosen to give us some snapshot insights into the levels of performance in Uganda. We used a self-administered questionnaire to the sampled FIs, because this allowed face-to-face interaction.

Moreover, the researcher had the chance to discuss with the respondents some of the questions that seemed to be unclear to the respondents since they hesitated (almost refused) to provide answers. By the discussion it was possible to further improve the questions and make them clearer. We made appointments with the respondents so that the questionnaire could be filled in instantly and the respondent could be endowed with supplementary explanations from the researcher. This also improved our response rate to 80%. In total, we received 40 usable questionnaires, i.e., four questionnaires per sampled institution (10 FIs, 40 questionnaires). The main reason for the few responses may be due to the small number of FIs that exist in Uganda leading to respondent fatigue since they have to fill in questionnaire from too many researchers. According to Cape (2010), the behaviour outcome of fatigue is satisficing, which is defined as doing just enough work to satisfy the task. After collecting the data, we summarised them, and edited them. The findings are reported in Chapter 5.However, we noted the self-administered questionnaire approach as employed (a) requires knowledgeable respondents in the area of study, (b) takes a long period, (c) has a low response rate, and (d) it involves high follow up costs.

5 MoPFED is Uganda government ministry that is mandated to co-ordinate development planning, mobilise public resources, and ensure effective accountability for the use of such resources for the benefit of all Ugandans.

6 New Vision is the daily Uganda newspaper that belongs to the New Vision Printing & Publishing Company Limited (www.newvision.co.ug).

7 Bank officers are in charge of every aspect of retail banking

4.4.3 Questionnaires for Survey 3

Below we discuss the procedure we followed in collecting the qualitative data by Surveys 3. It consists of two phases.

Phase1.The pretesting phase of Questionnaire 2

The pretesting phase of the comprehensive questionnaire consisted of consulting 11 experts from two organisations MUBS and BoU. Their distribution was as follows: 3 from the human resources discipline, 3 from finances, 2 from psychology, and 3 from marketing. They were asked to comment on the questions with the aim of improving the content validity. Then revisions were made on contents of the questionnaire by following the specialists' suggestions. This helped us to improve on our content validity.

The adapted questionnaire was submitted to a sample of employees from FIs as a pilot survey. In itself, the pilot survey consisted of (a) a questionnaire with questions on the HPO framework, KM, and high performance (b) a series of interviews with a sample of managers from the established high performance FIs. Since we operationalised our variables along several dimensions and used several questions that exhaust these dimensions, we carried out a factor analysis to identify groups of variables and see how they were related to each other. According to Field (2009) and Feisel (2009), behavioural and exploratory studies such as ours should use the explanatory factor analysis to understand the structure of the variables and know which of the questions cause more variability in the variables they measure. This method has been supported by recent scholars in KM (cf. Makani and Marche, 2011). Validation of the factor analysis constructs will be discussed in depth in Chapter 6. The results were used to identify the questions which were ambiguously phrased; as a consequence, and they were rephrased or removed from the instrument.

Phase 2. Survey 3: the main survey

The exploratory factor analysis was performed to uncover the underlying factors or dimensions which contribute to common variance within our set of measured (or observed) variables (Hair et al., 2006). By employing this statistical technique, we were able to identify the factors that can be used to describe the KM practices of the FIs in our study. Factor analysis was performed on all the key study variables. Hair et al. (2006, p.110) suggest that "…the researcher should always consider the conceptual underpinnings of the variables and use judgment as to the appropriateness of the variables for factor analysis. The revised questionnaire was administered to employees of FIs by two research assistants. They were hired to assist the researcher in the final data collection exercise. They were given basic training on how to administer and deal with the respondents and on questionnaire handling.

4.4.4 Interviews for the Case Study

In this subsection we discuss the process of collecting qualitative data using interviews. We contacted the FIs by an introduction letter from MsM (see Appendix Q) in which we requested to be able to obtain information for our study. We politely approached the HRM director or the operations managers and asked them to participate in the interviews. We faced the following challenge: they were sometimes hesitant to participate in the research because of the banking policy which emphasises discretion in bank operations. If they answered positively, then they were interviewed as part of the major study mainly to establish the KM practices. The focus was on the way they helped their employees to acquire knowledge, disseminate knowledge, and respond to knowledge. The interviews also supported us in identifying the KM strategies and approaches in use by managers in FIs. Details of the interviews are presented in Chapter 6.

The questions ranged from establishing the position of the managers and their role in the organisation to establish their perceptions towards the concept of KM and to know the KM practices in their organisations. In terms of the data sources the questions were on: acquisition, dissemination, and the response to knowledge. Further, we sought to know (1) how the organisation uses its knowledge resources to become competitive, (2) whether they considered their organisation competitive in the industry, and (3) what has been their contribution in advising their organisations to accept and use its knowledge strategy/ resources to become more competitive. Further, we requested the managers to rate their organisations' performance in the industry (i.e., high, middle, or low) and whether there has been any deliberate effort to improve or sustain the current performance rating. Finally, we probed for the use of Waal's HPO framework.

4.5 Methods and Structures of the Data Collection

In this section we discuss the three data collection methods used: the Survey 1 of audited financial reports in subsection 4.5.1, the survey questionnaires in subsection 4.5.2, and the interviews in subsection 4.5.3.

4.5.1 Audited Financial Reports

The annual balance sheets and income statements used to construct the variables for the empirical analysis were taken from published balance sheet information in annual reports of each individual financial institution. The comparisons of balance sheet items were used to gain insight into the (1) changes in the financial position, (2) strength/weakness of the financial position, and (3) relationship between different items. Two basic balance sheet ratios were extracted: the debt ratio (total debt / total assets) and debt to equity ratio (total debt / total equity).

4.5.2 Survey Questionnaires

The use of a survey methodology requires much time in designing and piloting the questionnaire. We discuss the questionnaire development in detail in this section. A questionnaire for measuring the independent and dependent variables was developed and administered to employees with the request to act as our respondents (see Appendix C). The questionnaire was divided into five categories, namely (0) preliminary demographic data of the respondents and organisations, (1) knowledge management, (2) the characteristics of the HPO framework, (4) high performance, and (3) competitive advantage. We note that though the data obtained by using a questionnaire is standardised and allows comparison (Saunders et al., 2009), there could be a possibility of attribution. Thus three open-ended questions (see below) were added to allow respondents to give their own views. Each questionnaire took about 10 to15 minutes to fill out.

Open-ended questions

Open-ended questions were used to gain qualitative data with regard to the subject of investigation. Open-ended questions required respondents to answer in their own words. These unstructured questions have a much less biasing influence on responses when compared to close-ended type of questions. Respondents are free to express any view. Their comments and explanations can help to bring insight into the data collected from closed-ended type questions (Malhorta, 2004; Berdine et al., 2008). The results are presented in Chapter 6. The following open-ended questions were asked: (1) Describe any other KM practices used by your institution that were not captured in this questionnaire, (2) Provide any other view in relation to the above organisational characteristics, and (3) Please suggest any strategies that are used by your institution to improve its competitiveness and performance.

4.5.3 Interviews

Data was collected using structured interviews, guided by an interview schedule. As observed by Qu and Dumay (2011, p.9), “Semi-structured interviews involve questions guided by identified themes in a consistent and systematic manner interposed with probes to elicit more elaborate responses”. The instrument allows for the interaction between the interviewee and interviewer and as a result, a clear understanding of the issue is provided (Carcary, 2009). The interview guide was developed by building on a comprehensive review of the literature with respect to KM and performance. The interviews centred in particular on KM (strategies and processes) (see appendix D). The set of questions provided background information on the FIs and the study objective. The interviews lasted one to two hours and were conducted in the period of June, 2012 to September, 2013(both inclusive).

The following three reasons support our choice for interviews: (1) Interviews provide an internally consistent research approach when asking questions that relate to meaning and interpretation, (2) Interviews are an appropriate methodology to capture complex interpretations of experience, and (3) Interviews tap into the unique kind of knowledge that is communicated through explanation. For all interview situations, we had a checklist of FIs available to cover the relevant issues during the interviews, but at the same time, we allowed the interviewees to narrate stories and experiences that they considered to be relevant to this study. With the permission of the respondents, all interviews were audio-recorded, transcribed verbatim and memos were written to summarise information obtained. Yin (2009) explains that audio-taping helps the researcher to produce a more accurate version of the interview.

4.6 Operationalisation and Measurement

This section consists of four subsections. In subsection 4.6.1 demographic characteristics, we explain how we operationalised the key concepts in the UFI model for HPO. In subsection 4.6.2, we operationalise the four key concepts. In subsection 4.6.3, we discuss the different measurement scales that we used to assess the concepts in the model. In subsection 4.6.4, we provide responses and response rates.

4.6.1 Demographic Characteristics

The demographic characteristics of the respondents are the control variables of our survey. The UFI model for HPO includes four control variables: gender, level of education, position in the organisation, and functional level. The level of education may influence the level of KM practices in FIs. This is linked to the employee capabilities. The position of the employee in the organisation may have an influence on KM and consequently his ability to perform, and the functional level it was assumed would help us to determine the employee's accessibility to knowledge within the FI. The institutions' characteristics also assist in understanding the nature of the institutions studied; they are five in total: number of employees, corporate life cycle phase, performance level, country of origin, and listing on the stock exchange. Control variables were considered important because, for example, if a business is foreign owned, its performance might be better than the indigenous FIs, owing to the influence from the country of origin (see Chapter 6).

4.6.2 Operationalisation of Key Concepts

In Table 4.1 we list the four key concepts of our model. In the third column we give an operationalisation in order to obtain information from them in a meaningful way to help us answer our problem statement:
To what extent can KM help financial institutions in Uganda to become high performance organisations?

Table 4.1 Operational definitions of the concepts in the UFI model for HPO.

No	Concept	Operational definition
1	**HPO framework**	*Characteristics that can be influenced by managers; so the managers are able to take targeted actions to start achieving superior results.*
	Quality management	*Sound role models, nurture and inspire trust, respect, and enthusiasm, and are performance-oriented both in their ability to make decisions and to execute them.*
	Quality workforce	*A diverse and complementary workforce, which are flexible and resilient.*
	Long-term commitment	*Organisation maintains mutually beneficial enduring long-term relationships and partnership with stakeholders and was socially responsible.*
	Continuous improvement	*A strategy that sets the organisation apart from its peer group, and structures its processes, products, and services in such a way that this unique strategy is achieved in an innovative way.*
	Openness and action orientation	*Encouraged dialogue and risk taking in an organisation; it is essential for creating renewal and innovativeness.*
2	**Knowledge management**	*KM is considered in the context of adding value to business success.*
	Knowledge acquisition	*Generating new skills, new products, better ideas, and more efficiency.*
	Knowledge dissemination	*The degree to which information is distributed, shared, and discussed among relevant users within an organisation by formal and informal means.*
	Responsiveness to knowledge	*How does an organisation respond to the various types of knowledge to which it has access?*
3	**High performance**	*Performing exceptionally well.*
	Financial: Profitability	*Ratios which are used to determine the company's bottom line and its return to its investors.*
	Financial: Productivity	*The efficiency by which inputs are converted into outputs. A personal quest that produces the value that matters most to the organisation.*
	Non-financial: Market share	*The percentage of the overall volume of business in a given market that is controlled by one company in relation to its competitors.*
	Non-financial: Employee satisfaction	*The extent to which employees are happy or content with their jobs and work environment.*
	Competitive advantage	*An advantage enjoyed by an organisation over others, derivable from the ability to offer consumers greater value for money.*
	Capabilities	*The efficiency by which a firm employs a given set of resources that are at its disposal to achieve certain objectives.*
	Resource	*The assets a firm owns, externally available and transferable.*

4.6.3 Measurement Scales

Measures for some of the constructs were already available in the literature. So, they are adapted to suit the current context of Uganda's FIs. We did so for two reasons: (1) we wanted to avoid criticism that comes from employing a new and inconsistent set of items that do not allow comparison to previous research (Becker and Gerhart, 1996) and (2) if possible we would like to compare parts of our own outcome with findings from the literature. Ten-point Likert scales were used to measure the constructs. Cooper and Schindler (2008) suggest that a larger number of scale points are needed to produce accuracy when using single-dimension versus multiple-dimension scales. Traditional guidelines suggest that the

appropriate number of categories should be seven plus or minus two: between five and nine. Yet, there is no single optimal number of categories (Malhotra, 2004).

Moreover, the number of scale points increases the reliability of a measure. We found it necessary to use scales with a neutral point in order to increase the response rate and reduce the possibility of low reliability that may be caused by random guesses by the respondents (Chung, 2008; John, 2009). Since our study had both single and multiple dimensions we opted for a larger scale point than ten. From the results of the pilot study we were able to establish the Cronbach's alpha estimate of reliability for the scale (see Appendix M).
Below we discuss the measurement scales that we developed for each concept in the UFI model for HPO: (A) the HPO framework, (B) Knowledge management, and (C) High performance.

A: HPO framework

The HPO framework measurement scale developed by Waal (2008) was adopted. This scale has 35 items: (1) eleven items refer to quality management, (2) four items refer to quality workforce, (3) six items refer to long-term orientation, (4) eight items refer to continuous improvement, and (5) six items refer to openness and action orientation.

B: Knowledge management

The measure for KM was adapted from the literature review (Darroch, 2005; Nemani and Creason, 2009). In order to capture the multi-facetted nature of KM, we measured the behaviours and practices for each component of KM: (1) ten items referred to knowledge acquisition, (2) nine items referred to knowledge dissemination, and (3) nine referred to responsiveness to knowledge.

C: High performance

The measurement of high performance takes place by using two factors (financial and non-financial) (see Rogers and Blenko; 2006; Waal, 2010). To construct and classify the items, high performance was measured using insights from many researchers, for instance, Huselid (1995), Huselid and Rau (1997), Brown (2004), and Darroch (2005). We measured high performance using five items to refer to financial high performance, six items to refer to non-financial high performance, and eight items competitive advantage.

Competitive advantage is ordinarily ensured by factors such as cost, quality, novelty, handiness, Circulation network, as well as the level of customer support (Porter, 1985). We measured competitive advantage using measurements suggested by Porter (2001). We selected 8 items that are related to our study: 4 items referred to resources and four items referred to capabilities.

The subjective measures of organisational performance have been shown to be a good indication of real performance (Deshpandé et al., 2004; Heap and Bolton, 2004; Devinney et al., 2005; Jing and Avery, 2008). To measure objective performance, we used the secondary data collected from the archives of the FIs.

4.6.4 Responses and Response Rates

In this subsection we present the response rate of the samples under investigation for (A) the survey and (B) the case study.

A. Survey 3

A total of 300 questionnaires were administered to employees in 28 FIs. Employees from 26 FIs responded. We did not receive a response from two financial institutions; as a result they were eliminated from the analysis. To increase the response rate, we promised the respondents that the data would be treated confidentially. We requested for their telephone numbers in case they wanted to access the findings. All questionnaires were accompanied by a letter (see Appendix N), explaining the purpose of the study and why it was important for the respondents to take part in the survey. The introduction letter was headed by the Maastricht School of Management (MsM) letterhead where the researcher was a student.

According to Church and Waclawski (1998), a response rate of somewhere between 30 and 85 % can be expected. Of the 300 possible observations, 240 responses were received, which is 80 % of the population specified for the research. The final number of observations was reduced to 213, after data cleaning. This reduced the overall response rate of usable observations to 71 %. In order to conduct the multivariate statistics, the 213 observations received complied with the preferable sample size of 100 or larger, that is needed for a factor analysis (Hair et al., 2011; Martins and Meyer, 2012). In summary, the number of observations received was sufficient to ensure a high degree of accuracy, enabling us to conduct the statistical tests proposed. The results of the tests are discussed in Chapter 7.

One of the research objectives was to establish relationships between variables. This required applying statistical analyses. It implies that the total sample sizes will significantly influence the accuracy of the results reported by statistical tests. The data collected in Survey 3 was measured against the following two guidelines: (1) from the positivism perspective, the scientific study of society should be confined to collecting information about phenomena that can be objectively observed and classified; (2) from the epistemological perspective, the study should be confined to classifying the world in an objective way, arguing that using these classifications, it is then possible to count sets of observable social facts and so produce reliable statistics. We used (1) Survey 3 questionnaires, and (2) the archival financial statement of FIs (Survey 1). The goal is to show the orientation of the observations.

Table 4.2 List of number of items for the measured constructs.

Measured Entities	Items(Questions)
The HPO framework	35
Knowledge management	28
High performance	19
Total	**82**

Since the HPO framework and KM are multidimensional concepts (i.e., encompassing several disciplines) which are new to some respondents; we found it necessary to conduct a validation exercise so as to confirm the adequacy and stability of the measurement scales or instruments. The appropriateness of the instrument was measured by carrying out content validity and construct validity (see Lewis et al., 1999; Saunders et al., 2009). Item-total reliability is a measure of internal consistency; measuring consistency among items by looking at the item-total correlation for each item or question was also used in this study.

B. The case study

A total of 16 managers participated in our research. This number of participants was determined through theoretical saturation because there was no additional empirical indicator coming out of the interview, e.g., by the tenth participant there was no new information emerging from the study by interviewing extra participants. Therefore we considered 16 respondents as our sample.

4.7 Validity and Reliability

We used various techniques to increase the validity and reliability of our instruments' results. In this section we discuss the techniques that we used. The ability to produce findings that are in agreement with theoretical and conceptual values is influenced among others, by the quality of the device used in the data collection (cf. Field, 2009). It is always important for a researcher to authenticate the device or measurement scales to be used in the study by carrying out validity and reliability tests. Reliability is a necessary contributor to validity, but is not a sufficient condition for validity. Below we define validity and reliability.

Definition 4.4 Validity

Validity is the extent to which a test measures what we actually wish to measure. (Cooper and Schindler, 2008)

Definition 4.5 Reliability

Reliability is the ability of an instrument to produce consistent results. (Field, 2009)

4.7.1 Increasing Validity and Reliability of the Case Study Results

To increase the *validity* of our case-study results, we used multiple sources of evidence which enabled data triangulation to take place. During the case study, *reliable* sources of information were used to try and optimize the validity and reliability of the results. These include (1) explanation building which was used to analyse and explain the results of the case study, (2) a detailed case study protocol which contained an activity plan and an interview list, and (3) adopting a constant comparative method as suggested by Lewis and Ritchie (2003) on the internal validity of the study.

In terms of *evaluating* the research output, Computer Aided Qualitative Data Analysis Software (CAQDAS) will help improve a study's internal validity. The package facilitate this by supporting (1) our reflection on the body of evidence in the light of concepts previously coded, (2) the coding of new pieces of data in relation to the boundaries of these codes or (3) the creation of new nodes. In this respect, CAQDAS facilitate the transparency of the analysis process, through the documenting of key interpretations in memos and the use of direct quotations to support those interpretations.

We also did the *pattern matching* using matrices in order to establish whether the empirical results match the predicted theories. Furthermore, we use multiple case studies to increase the generalisability of our findings. We maintain a chain of evidence throughout our reporting by making clear references to the interviews performed and by documenting the procedures we used to arrive at the final conclusions (cf. Yin, 2009).

4.7.2 Increasing Validity and Reliability of the Survey Results

To increase validity of the survey results we consulted experts from different disciplines mainly human resources, psychology, marketing, strategic management, and finances to assess the adequacy and stability of the instrument. Following the guidelines given by Churchill (1979), and Ehlert (2004), experts were asked to rate each item based on relevancy with the following scales: (1) not relevant (2) somehow relevant (3) relevant (4) very relevant. These were based on the relevancy to the existing theory and our conceptualisation of the variables. The findings were computed to establish the content validity index (CVI) for each variable to determine the validity of our Questionnaire 2. (See appendix L). The entire content index ratios are above the pre-set ratio of 70% as suggested by Ehlert (2004). The closer the CVI to one (1), the more valid is the instrument.

Convergent validity

A convergent validity was established with the aim of examining the extent to which different indicators of theoretically or overlapping constructs are strongly interrelated (Golafshani, 2003). To estimate the degree to which any two measures are related to each other, we used

the correlation coefficient. Items that correlate highly with variables measuring the same construct were considered as having a relationship.

To increase the reliability of the survey results we used the Cronbach's coefficient alpha to test the internal consistency and the reliability of the selected items in our questionnaire. The purpose was to prove the measures dependability (dependability refers to data stability) over time and over conditions (cf. Nunnally, 1978 and Anastasi, 1982). According to Grayson (2004) an instrument is said to be internally consistent if all its items measure the same characteristics. Below we define Cronbach's alpha.

Definition 4.6 Cronbach's alpha

"Cronbach's Alpha is a coefficient of reliability. It is defined as an internal consistency estimate of the reliability of the test score. Cronbach's Alpha has a positive relationship with the intercorrelations among the test items. The intercorrelations among the test items will be maximised when all items measure the same construct, so Cronbach's Alpha is believed to be an indicator of the entity's reliability". (cf. Cronbach, 1951)

All the measures were established as highly reliable according to Sarantakos (1997) who suggests that high reliability is (between 0.85 and 0.94) and for our variables we established that the scales had an internal reliability. The computed Cronbach alpha coefficient results were all above 0.7 except long term orientation (.652) and openness and action orientation (.561). Therefore, they are considered to have met the acceptable standards for content, internal reliability, and construct validity. The Cronbach's alphas coefficient of the three constructs resulting from the PCA are presented in Table 4.3.

Table 4.3 The Cronbach's Alpha for the constructs.

No	Construct	Alpha Coefficient
1	Management quality	.879
2	Workforce quality	.741
3	Long term orientation	.652
4	Continuous improvement	.793
5	Openness and action orientation	.561
6	Knowledge acquisition	.647
7	Knowledge dissemination	.705
8	Knowledge responsiveness	.866
9	Financial	.887
10	Non-financial	.855
11	Competitive advantage	.780

***Source*:** Calculated from primary data
Reliability table After Inter-Correlation and Deletion of items.

4.8 Data Processing and Analysis

In this section we present the methods used to process and analyse quantitative data. Once all the data had been collected from the field, it was subjected to several quality controls to increase the strength of the study. We present the archival data in subsection 4.8.1, the data from the survey in subsection 4.8.2, and the data from the interviews in subsection 4.8.3.

4.8.1 Archival Data

The archival data was analysed by the audited financial statements for two years (2009-2010), using the Microsoft Excel programme. The results are presented in Chapter 5. The study uses ratio analysis to compare profitability and productivity of the different categories of the banks. The financial analysis ratios are generally used as benchmarks for evaluating a firm's position or performance. The absolute values may not provide us meaningful values until and unless they are related to some other relevant information. Ratios represent the relationship between two or more variables. Ratios help to summarise large data to draw qualitative judgements about the firm's performance (Pitre, 2005[8]). The purpose of analysing the audited book of accounts was to establish and also obtain a fair view of the performance of the FIs (these are normally provided for the public by the FIs).

The audited financial statements were analysed in order to establish objective high performance (the profitability, productivity, and market share) levels of the FIs. The ratios are useful to help compare a firm with other institutions, and to follow the FIs performance overtime. We computed the productivity and profitability ratios extracting them from the statements of comprehensive income (profit and loss accounts and statements of financial position (balance sheets) per Bank (see Appendix H). We computed productivity and profitability of the FIs and then we aggregated the five years to establish the levels of performance. We were guided by the following formulae provided by Wood and Sangster (2008) (see Appendix H).

4.8.2 The Data from Survey 3

The data collected from Survey 3 was subjected to the following processes that were more rigorous than the processes used in Survey 2 because we had presented our findings at different conferences and received constructive feedback that required our attention in Survey 3: (A) data cleaning, (B) factor analysis, and (C) Aggregation.

(A) The data cleaning was done by sorting out the questionnaires which were not filled in fully by the respondents, and the exploration of the missing values using: (1) means

8 Pitre V, "Measuring Bank Efficiency: Productivity versus profitability." *Business line*, 2003, Available from http://www.blonnet.com/2003/09/03/stories/2003090300090900. htm. Accessed October 12, 2011.

and standard deviation, (2) scatter plots, and (3) Tests for normality (kurtosis, histograms, P-plots) were carried out using the SPSS–version 19[9] as the main tool to analyse collected data.

Data Exploration

The data was explored as part of data management to determine missing values, outliers, normality, multicollinearity, and homoscedasticity. This exploration was necessary to determine whether or not the data was suitable for parametric analysis and multivariate analysis (Field, 2009; Pallant, 2011).

Missing Data

Missing values must be identified and managed or else they affect multivariate analysis (Field, 2009). Each of the returned questionnaires was scrutinised for missing values upon its receipt. The questionnaires with missing demographic data (items from the preliminary section A of the questionnaire) were very few, and therefore, unimportant. However, a few incomplete items from this section which were meant to measure the constructs in the model were substituted with the mean score for that item. This was done in order to facilitate the data processing without distorting the results. The use of the mean substitution option may be based on the fact that the mean is a reasonable guess of a value for a randomly selected observation from a normal distribution (cf. Acock, 2005, p. 5). As such, the mean substitution method is one of the most commonly practiced approaches because it replaces missing values of a variable with the mean value of the observed values (see Rubin et al., 2007, p.3), as is the case in the present study.

Outliers

Outliers are values that are unexpectedly out of range as per the measurement scale (Field, 2009; Hair et al., 2011). The value should be identified and either deleted, transformed, or corrected depending on the nature of the outliers. According to Hair, et al. (2011), there might be univariate outliers, bivariate outliers, or even multivariate outliers that can be analysed using different techniques. We carried out a univariate outlier's analysis using the minimum and maximum frequency counts and means. Based on this analysis, three cases had a data entry error that had created an outlier, and it was corrected with reference to Questionnaire 2. The rest of the results showed no values that were out of range. For the bivariate outlier's analysis, we produced and examined bavariate scatter plots and there was no evidence of far apart distribution indicating limited chance of bivariate outliers (see Appendix Pi).

9 SPSS is a statistical package of SPSS Inc.

Normality

The assumptions of parametric hypothesis testing are that the data has a normal distribution. The normal distribution of data can be examined through the level of skewness and kurtosis. P-P plots, the histogram etch (see Field, 2009; Pallant, 2011).The results of the normality tests are presented in (Appendix Pii). According to Kline (2005), a fair level of the normality distribution of data is realised when the skewness and kurtosis statistics are not exceeding values of 3 and 10 respectively. This guide was adopted by Teo (2009) in his study of technology and Mafabi (2012) in his study on knowledge management and organisational resilience. The skewness and Kurtosis of this study (see Appendix Piv) are accordingly within the acceptable range despite the fact that other researchers like (cf. Field, 2009) recommend that skewness and kurtosis statistics should not be more than 2.5 times the standard error.

The P-P plots showed a relatively normal distribution of the data because the plots follow almost a straight line (Field, 2009). The histogram (see Appendix Piii) of the multivariate normality test through regression (Garson, 2010), the shape of the curve is almost bell-shaped, indicating a fairly normal distribution of the data. Besides normal distribution check, researchers also check for homoscedasticity as a condition for parametric testing.

Homoscedasticity

This refers to the measure of equal variance within that data, sometimes described as homogeneity of variance. The variance about certain phenomena in the population should be equal in regard to different characteristics of respondents. For instance, different respondents of different tenure, age, education, should ordinarily perceive high performance in the same way, if not, then the variance is not equal hence the situation of heterocedasticity which can violet the condition for multivariate analysis (see Hair et al., 1996; Field, 2009).

We tested for homoscedasticity using the regression scatter plot (see Appendix Pi) which showed that, generally, there was equal variance because of the shape of the plots that start narrowly and spread wide towards the end unlike the reverse (funnel shaped) that would suggest non-equal variance (heteroscedasticity) (cf. Pallant, 2011). The study used levene's test (see Appendix Piv) to test for homogeneity of variance and the results indicated common variance across the population because levene's statistics were not significant. This is in line with Field's (2009) claim that significant leneve test suggests homogeneity of variance in the data. The results were that the perception of respondents about the study variables was in general the same since the analysis of variance was not significant.

Linearity, Multicollinearity, Autocolinearity

There was need to establish whether or not the data was linear, with minimum multicollinearity and autocollinearity. For the relationships in the variables to hold reliable correlations that are predictable, the data should be linear, that is , the scatter plots should be distributed along the straight line in the graphs, commonly called the line of best fit (cf. Field, 2009; Garson, 2010). When we checked the scatter plots, they indicated fairly good level of linearity (see Appendix Pi). Since linearity is a condition for correlations and regressions, and this condition has been met, we ran correlations and linear regression. The F statistics generated through the regression were significant, indicating a linear model.

Researchers are expected to check for multicollinearity in data, a situation where the correlations between the predictor variables are very high almost towards perfect correlation that they distort the regression coefficients and the R square (Tabachnick and Fidell, 2007; Field, 2009; Garson, 2010). These scholars describe high correlations to be a correlation of r > .9. The correlation coefficient between KM and the HPO framework was .877 thus < .9 implying limited threat of multicolineality in the data despite the fact that .9 is a high correlation to be a cut-off measure of an indicator of multicolinearity. Since we were concerned with relying on the measure of r > .9 that appears too high a cut-off point, collinearity diagnostics in regression were further used to check for the threat of multicollinearity. The results of variance Inflation Factor (VIF), tolerance values, and the condition index indicated limited threat of multicolineality.

Definition 4.7 Variance inflation factor

Variance inflation factor (VIF) is a factor by which the variance of the given partial regression coefficient increases due to the given variable's extent of correlation with the other predictors in the model. (Field, 2009)

According to Field (2009) and Garson (2010), a VIF of less than 4 or even 10 (though 10 is rather high), indicates limited threat of multicollinearity. They also state guidelines of tolerance values of above 0.2 and a condition index of less that 30 to be tolerable levels of multicollinearity. In line with these standards, our results indicated acceptable levels of multicollinearity because, VIFs were below 5, tolerance values above 0.2 and the condition index below 30 (see Table 7.8). Therefore, the regression coefficients and the R square depict a fair prediction and explanation of high performance (Field, 2009; Garson, 2010). The Durbin-Watson index was below 2 (see Table 7.8) suggesting limited threat of autocorrelation of the residuals (autocorrelation).

(B) To answer the research questions and claims of the study, (1) we generated frequencies for the demographic data, (2) Principal Component Analysis (PCA), (3) correlation matrix,

and later we conducted (4) the regression analysis. Subsequently, we performed multiple regression analyses to test the claimed relationships among the variables.

The data was later aggregated to establish the predictive power of our independent variables on the dependent variable. In a related case, mediation tests were carried out, based on the works by Barron Kenny (1986), and Jose (2008), to examine the mediating effects of competitive advantage and the HPO framework in the relationship between KM and high performance.

(C) The aggregation of the data from the unit of enquiry (respondents) to the unit of analysis was the financial institution. We aggregated the data to the organisational level in order to interpret and draw conclusions based on the organisations that we studied (cf. Sekaran, 2008; Creswell, 2012).Keller (1986) points out that the aggregation of individual respondent scores to the group level may be appropriate simply because the theory and hypotheses of a study require a certain level of analysis. This suggestion has been supported by many recent researchers (cf., Luigi De and Atuahene-Gima, 2007; Jung et al., 2008).

The aggregation reduced our sample to 26 FIs, prompting us to use the partial list squares (PLS) to predict the relationships. Structural equation modelling (SEM) was employed to investigate the causal relationships between the dependent and independent variables. PLS-XL Stat 2012 was used for the analysis. The choice of PLS rather than covariance-based tools (e.g., LISREL), was mainly because PLS has more flexibility, is consistent, and has robustness in small to moderate sample sizes compared to the covariance-based methods (Ghobadi and D'Ambra, 2012; Hair et al., 2012). PLS also allows modelling formative constructs, and it has the ability of modelling latent constructs under conditions of fewer statistical constraints on the data (e.g., assumptions of non-normality).

PLS places minimal demands on measurement scales, sample size, and residual distributions (Chin, 1998). PLS simultaneously models the structural paths the theoretical relationships among latent variables and measurement paths relationships between a latent variable and its indicators (Chin et al., 2003). The main objective of PLS is prediction, rather than assume equal weights for all indicators, and the PLS algorithm allows each indicator to vary in its weighting towards the latent variable. A test of the measurement model was to examine item reliabilities, composite reliabilities, convergent validity, and discriminant validity. Second, the significance of the structural relationships was assessed using the bootstrap method within PLS.

4.8.3 Data from the interviews

Data were analysed using the content analysis technique with the aid of a qualitative data analysis software package called Nvivo. According to the recommendations and guidelines by Miles and Huberman (1994), Pope et al. (2000), Creswell (2008), and Bazeley (2007), the following steps were taken to analyse the data. First, the transcribed data were entered

into CAQDAS NVivo 8 package. The package served as a support tool in (1) managing the interview transcripts; (2) in reflecting the emerging themes, and (3) in interpreting the body of evidence. Each interviewee was considered as a case. The units of analysis were the paragraphs in each transcript that dealt with the separate KM process components.

Secondly, initial coding was deductive, in that using prior research, a scheme representing points in KM processes was developed. The following categories were distinguished: knowledge acquisition, knowledge dissemination behaviour, responsiveness to knowledge management behaviour. Afterwards, operational definitions were determined to facilitate the coding process. The predetermined categories were coded into tree nodes. Nvivo supported the creation of memos to clarify emerging concepts and the categorisation of interview material to facilitate cross-case analysis. Further, the package facilitated analysis through the establishment of relationships and model exploration.

Thirdly, the next round of coding was undertaken. Specifically, all transcripts were carefully reviewed, highlighting text sentences into emergent themes. The emergent themes formed the subcategory codes within each of the major categories. This approach helped to manage the data and eliminate the irrelevant data.

Fourthly, using selective coding, the components of each subcategory were specified. Essentially, the coding involved grouping quotations from the transcripts that represented each subcategory. Coding is a procedure that disaggregates the data, breaks it down into manageable segments, and identifies or names those segments. This allowed using the participants' own words as much as possible to maximize representation of participants own views as opposed to the researcher's. Cases shaped in nodes facilitated asking questions not only about the particular case (within-case analysis) but also all the cases of that type across-case analysis (see Appendix F).

Fifthly, a cross case-analysis was carried out. For each of the codes, the different KM processes were compared. Careful analysis of the coded record helped ensure that the domains derived accurately reflected participant's perspectives, and not the researcher's own bias.

Finally, the data was further explored to identify relationships within it using the search option (query function) of NVivo 8. It was easy to do cross-case analyses to re-order the codes and add memos about the potential relationships. This enabled an in-depth understanding of what each coded statement and relationship meant and the exploration of complex ideas quickly and easily.

The Role of the Researcher

The researcher in this study had the role of interviewing most of the managers and overseeing that the questionnaires distributed to respondents were filled in and were collected in time. Data was then assembled, input, and cleaned. Summaries in form of tables were made for further analysis. The researcher also extended small incentives to respondents to encourage them to respond.

4.9 Ethical Issues

There were several ethical issues that we encountered in our study such as (A) confidentiality, (B) privacy, (C) anonymity of our respondents, and (D) the FIs regulations.

A. Confidentiality

The information sought in this research involved personal opinions. Thus the information is kept confidential. Creswell (2008) emphasises the need for protecting the participants in research without putting them at risk. To ensure the confidentiality of the institutions in the study, responses to competitive advantage and high performance questions were grouped in the analysis, such that companies and individuals could not be identified. All respondents were guaranteed confidentiality.

B. Privacy

During the course of this research, the laws of the country in which the study was conducted, Uganda, in relation to FIs were observed. Permission was sought from relevant authorities.

C. Anonymity

In addition, the anonymity of FIs was maintained by using codes without disclosure of the names of the companies. The issue of anonymity of survey participants was dealt with by storing the respondents' telephone numbers separately from the reported data. The data presented in this study are from participants; there has not been data falsification.

D. FIs regulations

There are several regulations for FIs in Uganda. These include: entry standards, prudential standards, governance standards, compliance, monitoring and enforcement, and disclosure standards; the list goes on. In particular the disclosure standards were used by the managers of some FIs to deny access to information and refusal to participate in the study.

4.10 Challenges and Limitations of the Study

There were limitations for each method used to collect the data.

A. The archival

Our ability to answer the research question using the archival data was constrained by the nature of the administrative records and documents. Though they existed they did not contain the precise information needed to answer our research questions. The data from the audited financial statements are censored by the FIs for confidentiality reasons. To establish the performance levels of the FIs was not explicit, so we opted for interviews with the managers to fill the gaps.

B. The survey

We note the limitation of the quantitative approach that measurement typically detaches information from its original environmental "real-world" context. To obtain an insight into the real world situation, we interviewed the managers of the FIs. To establish the relationships we used correlation but they are not causation, therefore we used several analytical methods to arrive at our UFI model for HPO. Nonetheless, the results provide valuable indicators about what separates higher-performing organisations from their lower-performing counterparts and show the practices that are most effective in driving higher performance.

C. The case study

There are a number analytical difficulties in handling indicators of the study in qualitative data, for example, (1) selecting the right indicators among the almost vast number of potential ones, (2) ranking them according to their importance to the study, (3) ensuring high precision for indicators, (4) establishing reliability of numerical values of indicators, and (5) tracing all sources of mistake or noise in the judgement used to identify indicators. If no proper selection of the indicators and their working environment has taken place, they may lead to erroneous or irrelevant results. The challenges are already in the interviewing process where the interviewees tend to give answers they think the interviewer wants to hear. This leads to the limitation that it is impossible (even in theory) to predict the behaviour accurately. The limitation was controlled by crosschecking the findings with the employees.

4.11 Chapter Conclusion

In this chapter, we discussed a wide range of choices that we made regarding the methodology that we used in the study. We adopted a mixed strategy where we used the case study, the survey, and the archival research. The population of the study was the FIs, particularly the banking sector. Both primary and secondary data were collected using semi-structured interviews, a questionnaire, and archival data. Data was collected from the managers and employees of FIs. In addition to the questionnaire, we carried out interviews with managers to obtain a deeper understanding of some of the issues. Using more than one method of data collection may increase the reliability of the results (Ehlert, 2004; Pallant, 2011). The data collected was analysed using the SPSS package and CAQDAS. This chapter gives the methodology followed and laid a foundation for the Chapters 5, 6, and 7 which are concerned with data analysis.

CHAPTER FIVE

Financial Institutions in Uganda

5.0 Financial Institutions in Uganda

In this chapter[10], we explore the financial institutions in Uganda. We aim to answer RQ2 and RQ3. The research questions read as follows.

RQ2: *What is the existing level of levels of performance in FIs in Uganda?*

RQ3: What are the existing KM practices in FIs in Uganda?

We will answer these questions with the help of Survey 1 and Survey 2.

The chapter consists of the following eight sections. In section 5.1 an overview of the financial sector is provided. The importance of financial institutions for Uganda is specified in section 5.2. The methodology of the field work is described in section 5.3. The set up and results of Survey 1 are in section 5.4. The set up and results of Survey 2 are in section 5.5. The knowledge management practices are discussed in section 5.6. Nine business challenges faced by the FIs are discussed in section 5.7. In section 5.8 we provide the chapter conclusions and an answer to RQ 2 and RQ3.

At this point we remark that there exist only a few empirical studies on FIs in Uganda. They are publications on secondary data related to KM. We mention two of them: Turyasingura (2011) and Mafabi et al. (2012). Survey 1 (concerning the financial statements of 10 FIs) is considered to be vital for laying a solid foundation for the remaining part of the study. We further assume that several other studies in the area of business research, such as the study by Cowles et al. (2002), have encouraged practitioners and scholars to deal as adequately as possible with the development of knowledge and the understanding of the context. This is particularly important for the circumstances as they are in Uganda. Survey 2 (exploring the existence of HPOs in Uganda among 10 FIs) deals with a process in which an organisation needs to concentrate on what really matters. The aim is to achieve outstanding goals, efficiency, and consistency.

5.1 The Financial Sector: an Overview

Uganda's financial sector is characterised by a formal finance sector (FFS) and an informal finance sector (IFS). This is similar to the situation in other developing countries. The financial services sector includes activities by the Bank of Uganda, the Commercial banks, the Insurance companies, and the Foreign exchange bureau, as well as other activities auxiliary to financial intermediation. Of these, commercial banking is the main contributor to the financial services sector. We categorise the FIs into four Tiers (see Table 5.1).

10 The chapter is based on three papers by Bagorogoza, J.K., A.A. de Waal, H.J. van den Herik, and B.A. Van de Walle (2010, 2011, and 2012).

Tier 1 includes commercial banks which are authorised to hold checking, savings, and time deposit accounts for individuals and institutions in local as well as international currencies. Commercial banks are also authorised to buy and sell foreign exchange, issue letters of credit, and make loans to depositors and non-depositors.

Tier 2 includes Credit and Finance companies. They are not authorised to establish checking accounts or trade in foreign currency. They are authorised to take in customer deposits and to establish saving accounts. They are also authorised to make collateralised and non-collateralised loans to saving and non-saving customers.

Tier 3 includes microfinance institutions which are allowed to take in deposits from customers in the form of saving accounts. Members of this class of institutions are also known as Microfinance Deposit-taking Institutions (MDIs). MDIs are not authorised to offer checking accounts or to trade in foreign currency.

Tier 4 is not regulated by the BoU. The institutions are not authorised to take in deposits from the public. However, they may offer collateralised or non-collateralised loans to the public.

Table 5.1 Categorisation of FIs in Uganda.

Tier	Financial Institution	2011/2012	Total No. of branches
Tier 1	Commercial banks	23	455
Tier 2	Credit and Finance companies	3	No branches
Tier 3	Microfinance Deposit-taking Institutions (MDIs)	5	83
Tier 4	Institutions that are not regulated by the BoU	Over 1,000	
	Insurance companies	25	
	Investment banks and stock brokerage firms	9	

***Source**:* Bank of Uganda

In Table 5.1 in the third column we mention the number of the institutions in the year 2011/2012 and in the fourth column we mention the total number of branches (area operational offices) they have in the country. Next to the four tiers, there are other regulated FIs. However, they do not have the same objectives as the other tiers of FIs, and are mentioned separately. For instance, 123 FIs are licensed foreign exchange bureaus, of which 113 are located in Kampala (the capital city) and only 10 outside of Kampala. There are also FIs, which are not regulated by BoU, e.g., Investment banks and stock brokerage firms. They are regulated by the Capital Markets Authority (CMA) and the Uganda Securities Exchange (USE). Uganda has 25 Insurance companies, which are regulated by the Insurance Regulatory Authority of Uganda (IRA) and 2 development banks. Development banks provide financing for development projects that have a long term life span.

In 2010/11 the finance sector realised a big growth of 23.6%. However, in 2011/12 the growth decreased to 11.8 %. The share of the financial services sector with respect to the total GDP in 2011 was around 4.0 % (UBOS, 2012). FIs in Uganda have experienced changes and a notable growth, viz. an increase in the number of commercial banks from 15 in 2006 to 23 in 2011.The FFS is regulated by the Bank of Uganda (BoU) which is under the jurisdiction of the Ministry of Finance, Planning and Economic Development (MFPED). Our study concentrates on the formal finance sector, in particular on Commercial banks and Micro finance Deposit-taking Institutions (MDIs). Below we define a commercial bank (Definition 5.1) and an MDI (Definition 5.2).

Definition 5.1 Commercial bank

A commercial bank is an institution which accepts deposits, makes business loans, and offers related services.

Definition 5.2 Micro finance deposit-taking institution

A Micro finance deposit-taking institution is a financial institution licensed to carry on, conduct, engage in, or transact in microfinance business in Uganda.

All of the FIs are centred in and around Kampala. It is a centre of trade where the work of our Survey 1 and 2 was carried out (see Figure 5.1).

Figure 5.1 Map of Uganda highlighting the scope of the study.

Unlike the IFS where the players are uninstitutionalised and unregulated and where their performance is largely undocumented, FFS are regulated by the central bank and industrial associations. Obviously, it is easier to apply research methods in the FFS since they provide a reliable context for a theoretical (and practical) framework. This being so, Ugandans have limited sources of finance which is a big impediment in business performance (cf. Ishengoma and Kappel, 2011). This has adversely affected the national economic growth rate decreasing from 10.8% in 2005/2006 to 5.8% in 2009/2010 (GOU/MFPED, 2011). The average annual growth rate is 3.2% per annum (BoU Report, 2012). So, there is a concern that an inefficient and weak financial management system hinders the economic growth.

5.2 Importance of Financial Institutions for Uganda

The financial sector in Uganda is fundamental to other sectors in the economy and has a significant impact on the efficiency and productivity of the country's economy. The institutions are expected to improve their own performance for sustainability and competitive advantage. The FIs are important to Ugandans for performing at least the following four tasks: (1) they provide essential financial services to Ugandan population, (2) they benefit the domestic economy, (3) they improve the business performance, and (4) they are instrumental in reducing the poverty levels. The tasks are briefly discussed below.

(1) Providing essential financial services

FIs provide essential financial services to the Ugandan public, such as loans, insurance, and savings. In particular, commercial banking institutions provide banking services to individuals and small-to-medium-sized enterprises (SMEs). The sector is key in mobilising domestic savings and essential for facilitating efficient investment (cf. Mugume, 2008; Beck and Hesse, 2009).

(2) Providing benefits to the domestic economy

FIs, in particular local banks, provide benefits to the domestic economies. This has been achieved through the evolution and promotion of small business enterprises. Easy access to finances for projects and businesses has in turn increased household incomes and GDP. With improvements in the incomes, Ugandans secure an improvement in the quality of life (cf. Kakeeto, 2012).

(3) Improving the business performance

FIs provide the business community with products that help them to improve their business performance. Business performance involves reviewing the overall business and determining how it can better reach its goals. The FIs, in particular banks, are custodians of the assets of the public masses. The banking sector plays a significant role in the modern world of money and economy. The banking sector influences and facilitates many different but

integrated economic activities. Banks are active in resource mobilisation, production, and distribution of public finance in Uganda.

(4) Reducing poverty

FIs can help the Uganda government to achieve the millennium development goals (MDG) especially poverty reduction. Notably, savings can be made accessible to the poor in the context of high performing FIs. Careful comparative analysis of the growth rates of different countries has produced convincing evidence that possessing a solid financial system contributes to growth and is not merely a reflection of prosperity (cf. Kridan and Goulding, 2006; Honohan and Beck, 2007). A country's financial sector is important for real economic activity as the size of an efficient financial sector not only affects the level of output by allocating productive capital more efficiently but may also contribute to economic growth. For example, in the EU-15, the financial system (banks, insurance, and pension funds) made a contribution to the economy of 5.3% of GDP in 2005 (Beck et al., 2012). In particular, the contribution of the Dutch financial system to GDP is 6.8% (Liikanen et al., 2012). When an organisation reaches an HPO status, this reflects on its profitability, return on assets, return on equity, return on investment, return on sales, and on total shareholders return.

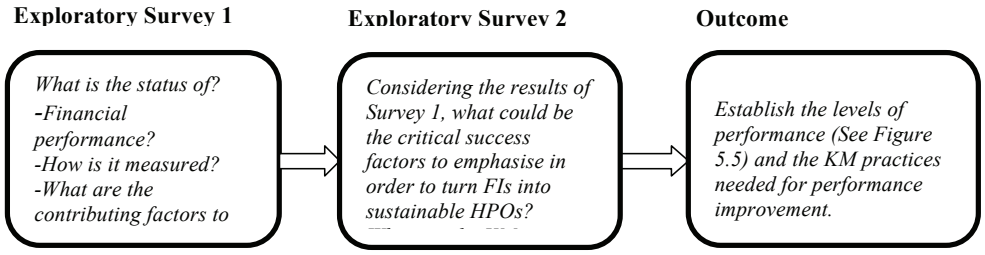
The importance of the FIs to the economy cannot be overstated; therefore, a fast development towards HPOs is of utmost importance. The changes in the performance and structure of banks so far have had far-reaching implications for the whole economy as observed by many scholars (cf. Ali and Ahmad, 2006; Yang Liu, 2008; Beck and Hesse, 2009; Afande, 2013). In addition, we stress that in a competitive environment, FIs will need to pay increasingly close attention to the way clients should be informed on their services, making it necessary for FIs to have good KM strategies. For our investigation, when looking at possibilities to increase the quality of Uganda's FIs, we turn to the high performance organisation's research.

5.3 Methodology of the Field Work

In this section we present the relation between Survey 1 and Survey 2 (see Figure 5.2). Survey 1 was carried out to establish the existent levels of performance and Survey 2 to explore whether some FIs in Uganda have achieved the HPO level. We have mentioned in Chapter 4 why we have only relatively few respondents. According to the methodology we follow, we would like to consider Survey 1 and Survey 2 exploratory surveys (see Figure 5.2). In line with our definition of HPO (see definition 1.2) we investigate high performance in relation to financial and non-financial results. Survey 1 covered 7 commercial banks and 3 MDIs. The commercial banks are recorded as C6, C7, C8, C19, C20, C21, and C22 (see Appendix A). The MDIs are recorded as MDI23, MDI24, and MDI25 (see Appendix A). For the selection procedure we refer to section 4.3. In Survey 2, two categories of respondents are involved: (1) the accountants who provided the archival data for Survey 1 and (2) the

employees who filled in Questionnaire 1 for Survey 2 (Please note that we provided more details in Chapter 4 on methodology).

Figure 5.2 How we aim to achieve our goal.



5.4 The Set up and Results of Survey 1

In this section we present the set up and the results of Survey 1. It is an exploratory setting in which we analyse the financial statements to establish the levels of performance of the FIs by considering their profitability levels, their productivity levels, and the market share. In order to achieve insight into the path towards the UFI model for HPO, we use the following guiding questions.

1. How is financial performance measured in Uganda's FIs?
2. What is the status of financial performance in Uganda's FIs?

In line with most research studies that analyse the financial performance of organisations over a longer period of time, we identified the factors that contributed to the performance of FIs. We studied the research papers by Chenhall and Langfield-Smith (2007) and Ittner and Larcker (2009) and found out that we could use profitability, productivity, and market share as performance factors. For proper understanding, we define financial statement below.

Definition 5.3 Financial statement

A financial statement is a summary of reports that shows (a) how a firm has used the funds entrusted to it by its stockholders (shareholders) and lenders, and (b) the current financial position. (Dunn 2002)

There are four basic financial statements: (1) statement of comprehensive income (also called the income statement), which shows how the net income of the firm is arrived at over a stated period, (2) statement of financial position (also called balance sheet), which shows

the firm's assets, liabilities, and net worth on a stated date, (3) statement of changes in equity, which shows the capital structure of the company, and (4) the cash flow statement, which shows the inflows and outflows of cash caused by the firm's activities during a stated period.

From the archives and secondary data (financial statements), we used the information to perform a ratio analysis which supports us (1) to determine the financial performance among different FIs, (2) compare a firm with other institutions, and (3) to follow the institutions' performance over time. The ratios also supported us in summarising the large amount of data and to draw qualitative judgements about the FIs performances. However, studies show that different analysts emphasise different ratios (see Combs et al., 2005; Henri, 2006; Ittner, 2008; Crabtree and DeBusk, 2008). As stated above, our study includes (1) profitability, (2) productivity, and (3) the market share.

As a case in point, we analysed the financial statements of the FIs in Uganda to determine the existing levels of performance for the years 2009 and 2010. To establish the profitability and productivity ratios of the FIs the archival data was analysed using the formulae provided by Wood and Sangster (2008) (see Appendix H). The results are presented in the subsection 5.4.1 and 5.4.2 (see Tables 5.2 and 5.3 as well as Figures 5.3 and 5.4) respectively. Please note that we focus in both cases on the results of 2013. They are given in a descending order (of the 10 FIs 3 are MDI and 7 are commercial banks). For comparison we also give the results for five year (2009 up to 2013). For results and figures of the market share we refer to subsection 5.4.3; we also refer to the BoU report 2013 (see Appendix G).

5.4.1 Profitability Ratio

Profitability ratios provide useful information about the joint effects of liquidity, operating performance, and debt management on operating results. To establish the profitability of the FIs, profitability ratios were obtained from the income statements, balance sheet, and statement of changes in equity. The major profitability ratios chosen for our study are: profit margin and net profit margin (see Appendix H).

Profit margin measures the profit earned per dollar or per shilling on sales or incomes earned. This happens in a relative valuation of all details. For instance, if two firms have the same sales or income figures, and the same operating costs and earnings before income and taxes (EBIT), but one firm has a larger debt than the other, it means that it has higher interest charges. This will decrease the net income and consequently result in a lower profit margin on sales. Therefore, profit margin is a very important financial ratio in a relative valuation.

Net profit margin is the net profit after all deductions have been taken care of, i.e., to including all expenses, interest, and taxes (Gross income minus total operating expenses, interest, and taxes).

Net Profit Margin = Earnings after Tax (EAT) x 100%
Net Incomes

The computation of the net profit margin is given as a percentage. We did it for the years 2009 up to 2013 in order to allow for comparative purposes. Owing to the number of banks (10), we were able to determine the trend of performance over these years. Profits bring a flow of cash into the business while losses take cash out of it. The results for the five years 2009 to 2013 are provided in Figure 5.3 (see Appendix H). They are compared to the industrial average which has been established by the BoU as being 10% for the years.

Table 5.2 Computed net profit margin ratios for FIs in Uganda for 2009-2013.

Bank Code	Net Profit Margin (Ratio) % 2013--2009				
	2013	2012	2011	2010	2009
C 7	41.0%	42.7%	36.2%	45%	35%
MDI 25	22.4%	23.8%	17.9%	11%	10%
C 6	21.5%	23.4%	25.5%	20%	19%
C 19	20.9%	23.2%	28.2%	23%	33%
C 8	20.7%	38.3%	38.1%	48.4%	46%
C 22	12.5%	17.9%	6.1	5%	-1%
MDI 24	6%	4%	14.7%	1.4%	7.5%
MDI 23	5.8%	5.7%	7.2%	6%	13%
C 20	-20.9%	13.5%	33.1%	29%	32%
C 21	-21.8%	-31.7%	-7.00%	31%	31%
Industrial average	10%	10%	10%	10%	10%

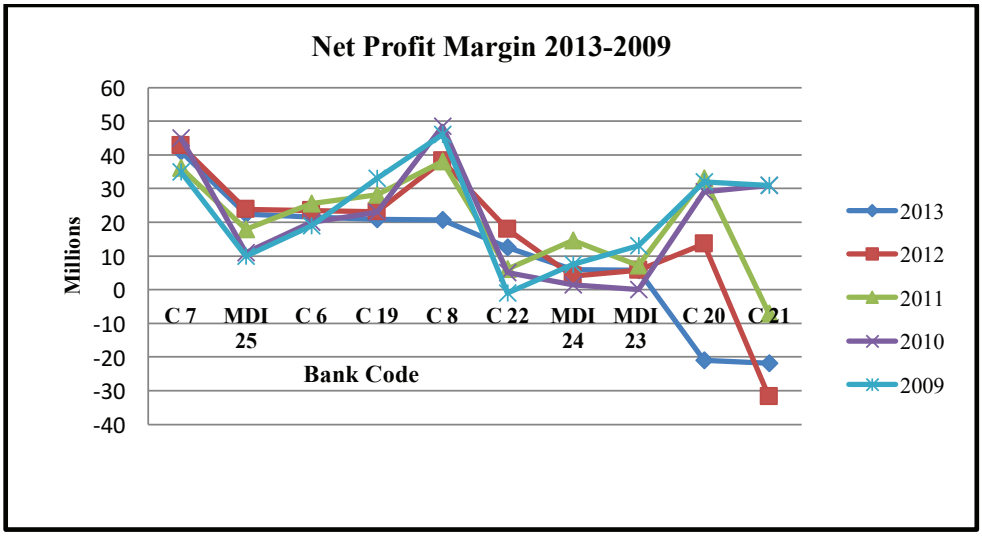
***Source*:** Secondary data (financial statements)

Note: *Financial statements are prepared in accordance with International Financial Reporting Standards (IFRS) and in accordance with the requirements of the Bank of Uganda Act. (BoU, Annual Report, 2013). The IFRS suggests that the financial statements be prepared and presented in columns starting with the current year to enable comparison or comparability with the previous year*.

In Table 5.2 the results are summarised. They are ordered by a decreasing net profit for the year 2013, and visualised in Figure 5.3.We see that in 2013 six FIs (C7, MDI25, C6, C19, C8, and C22) were performing above the industrial average of 10%. Margins faced a significant reduction in the year 2013 with FIs (C20, C21, MDI23, and MDI24) performing below the industrial average. In comparison, 2012 had seven FIs (C7, MDI25, C6, C19, C8, C20, and C22) performing above the industrial average, and three FIs (C21, MDI23, and MDI24) performing

below average. In 2011 only three FIs (C21, C22, and MDI23) had their profitability below the industrial average. In 2010 still seven FIs (C7, MDI25, C6, C19, C8, C20, and C22) were performing above industrial average of 10% per annum and three FIs (C22, MDI23, and MDI24) were below. We see that in 2009 eight FIs (C7, MDI25, C6, C19, C8, C20, C21, and MD123) performed above the industrial average, and only two FIs were below the average namely, C22 and MDI24. Comparing 2009 and 2010 we see that in 2010 the performance declined. Generally, there was an increase in the net profit margin for all banks in 2011-2013, except for C21 and MDI 24 which were below the industrial average of 10% as shown in Table 5.2.

Figure 5.3 Visualisation of the net profit margin ratios for FIs in 2013-2009.



Source: Secondary data (financial statements)
Note: C represents a code for commercial banks; and MDI is a code for micro-finance deposit taking institutions.

At a closer inspection of Figure 5.3 three observations are worth to be singled out. First, we see three FIs (C7, C8, and C19) continuously improving in their performance in relation to the net profit margin from 2011-2013. They were above the industrial average in the 5 consecutive years. Second, there is also an indication of a slight performance improvement for three other FIs (C6, C22, and MDI25). Third, we see four *surprising* results in the five years analysed with respect to 2013, viz. C20, C21, MDI23, and MDI24 were below average in comparison with their colleagues in the industry. We provide three possible explanations for the third observation as follows.

(1) The four FIs involved were not well prepared for the financial crisis that spilled over from Western countries and caused FIs to increase the interest rates. For instance, they increased the lending rate to 25% per annum. This was, however, too high for many potential borrowers. Ugandans have raised concern about the high lending rates that banks charge borrowers in Uganda compared to other countries in the region. Kenya's average commercial bank lending rate for the six most dominant banks was at that time at 17% for the country's 43 licensed commercial banks. The average lending rates in the country is generally between 12% and 15%. Tanzania's highest prime rates are just at 21%; yet, many commercial bank lending rates in that country are below this percentage. Lending rates in Rwanda and Burundi are below the 20% rate. Experts argue that infrastructure and structural issues are partly to blame for the high rates in Uganda. Due to limited access to electricity around the country, semi-developed road network, and the uneven distribution of commercial banks, Ugandans spend about $4.2b (sh11.4 trillion) annually to access the banking system, according to the (Global Financial Inclusion Indicators (Global Findex), 2012). However, Uganda understands very well that lower interest rates will subsequently lead to low credit losses.

(2) Foreign owned banks are bound by the rules and regulations that are set by the country of domicile. We mention USA, UK, and Kenya. These countries formulate the rules for the countries where they invest (e.g., in Uganda). In contrast, the local banks have rules and regulations that are made and shaped based on Uganda itself (the environment of operation). So, they may be favourable to Ugandans. Yet, the foreign banks provide a more stable infrastructure. This makes the situation difficult.

(3) In our opinion, the arguments under (2) could also be an indicator as to why some of the FIs have not attained the HPO status, since according to Kaliprasad (2006), high performance is attributed to organisations which exhibit characteristics such as the ability to interpret the business environment, the ability to foresee and act upon new business opportunities, and the flexibility necessary to maintain core values while still being able to adjust their output to meet new market demands or conditions. However, there is need for a model that can help to develop the competency within the FI managers to focus, prioritise and stay on course.

Authorities and the banks themselves have attributed to (1) structural rigidities that raise the cost of doing business in Uganda, (2) risky borrowers due to limited information about Ugandans, and (3) lack of long term finance. These are logical challenges, but over time they have been improved upon, without much response from banks.

5.4.2 Productivity

Productivity represents the efficiency by which physical inputs are converted to useful outputs. Various productivity measures can be computed, depending on the treatment

of inputs and outputs. Single-factor productivity ratios, such as labour productivity or capital productivity, give output per unit of a single input type. Multi-factor or total-factor productivity ratios take into account the fact that multiple inputs are jointly used (cf. Lieberman and Kang, 2008).To determine the productivity of FIs in Uganda, we used the multiple inputs ratios of Return on Assets (ROA). The return on asset ratios was computed based on the five years 2009 up to 2013 (see Appendix H). All ten FIs have invested in assets (i.e., something valuable that an FI owns, benefits from, or has use of, in generating income) the minimum statutory capital for banks is Shs. 25 billions a requirement by the BoU. What they generate out of the assets invested is in general below what they expected to receive. Our yard stick is the industrial average of 5%. Table 5.3 represents the productive capacity of the FIs in descending order of the 2013 results.

Table 5.3 Computed return on assets 2009-2013.

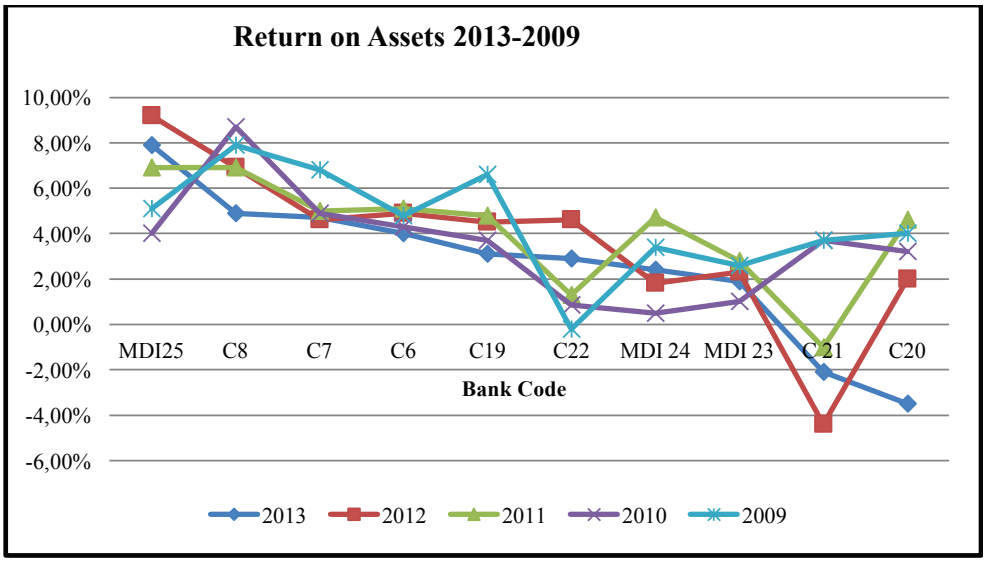
	Return on Assets 2013-2009				
Bank Code	**2013**	**2012**	**2011**	**2010**	**2009**
MDI25	7.9%	9.2%	6.9%	4%	5.1%
C8	4.9%	6.9%	6.9%	8.7%	7.9%
C7	4.7%	4.6%	5.0%	4.9%	6.8%
C6	4.0%	4.9%	5.1%	4.3%	4.8%
C19	3.1%	4.5%	4.8%	3.7%	6.6%
C22	2.9%	4.6%	1.3%	0.85%	-0.20%
MDI 24	2.4%	1.8%	4.7%	0.5%	3.4%
MDI 23	1.9%	2.3%	2.8%	1%	2.6%
C 21	-2.1%	-4.4%	-1.0%	3.7%	3.7%
C20	-3.5%	2.0%	4.6%	3.2%	4%
Industrial Average	**5%**	**5%**	**5%**	**5%**	**5%**

Source: Secondary data (financial statements)

Table 5.3 shows that the year 2013 had one FI (MDI25) performing above the industrial average and nine FIs (C8, C7, C6, C19, C22, MDI24, MDI23, C21, and C20) were performing below the industrial average of 5%. In 2012 only two FIs (MDI25 and C8) performed above the average and eight were below average. In 2011 four FIs (C7, C6, MDI25, and C8) performed above the average and six were below the average industrial requirement of 5%. The outcome in 2010 shows that only one FI (C8) performed above the industrial average and nine FIs (C7, MDI24, C6, C19, C21, MDI23, MDI25, and C20) performed below the average. The outcome of the findings in 2009 show that four FIs (C8, C7, C19, and MDI25) performed above the industrial average and compared to the results in 2010 only one financial institution C8 performed above the industrial average. In 2009 six FIs (MDI24, C6, C21, MDI23, C22, and C20) had the ROA below the industrial average. The ROA for the sampled FIs was largely below 5%, implying a low return on assets for the FIs in Uganda.

All in all, there was a large decline in performance in 2010. Although the years 2011-2013 show a slight improvement of ROA for all banks, C21 and C20 continue to have low ROA. A possible explanation for the decline in performance could be the high operational costs which could be high for the new FIs in the market (e.g., C21), and that they may not have acquired sufficient clients to sustain their assets investment. Furthermore, it is estimated that the population which is 'unbanked' or does not use formal financial services in Uganda is less than 10% of the total adult population (UBOS report 2013). In addition this client base may not have gained trust in the new entrants in the industry. Moreover, the pace at which the new FIs have grown may have been too quick, forgetting to follow the traditional guiding principles of prioritising the following: (1) quality, (2) volume, and (3) customer's concerns. This could be attributed to the changing economic conditions which (a) make future revenue predictions uncertain, (b) make government and commercial sponsorship not clear, and (c) may change; additionally (in favour) the role of special interest issues may be increasingly important for artistic and commercial endeavours and traditional methods of management (Royal and O'Donnell, 2008). To show the fractuating FIs performance results, we make a graph out of the results in Table 5.3 showing the financial year 2009 having higher returns for all the FIs (see Figure 5.4; a graph highlights the trends of performance better than a histogram).

Figure 5.4 Return on assets for FIs 2013-2009.



Source: Secondary data (financial statements)
Note: C represents a code for commercial banks; and MDI is a code for micro-finance deposit taking institutions. Assets (USD) Millions.

All FIs have invested in assets which are stated as a minimum requirement before they can be registered by BoU. The FIs have further, invested in assets such as the opening of several branches in upcountry towns where they have fewer sales and incur high operational costs; this could be a possible explanation for the reduction in the return on assets. For example the FIs which have only one operational area like C7 has its return on assets higher than C6 which has 41 branches country wide, which is an indication that the FIs are incurring high costs of maintaining unprofitable branches because of the small bankable population, i.e., about 4 million account holders (UBOS report 2012). The findings indicate that generally, there has been an increase in the number of service branches for all FIs from 301 in 2006 to 455 in 2011. However, the slow economic activity dampened the momentum of the FIs performance in 2013. Similarly, the bank's earnings on assets consequently dropped due to the impact of compressed margins. However, opening new branches may be profitable for the FIs which are based on high revenue corrections.

According to Mittal and Dhade (2007), profitability and productivity are interrelated. Though productivity is not the sole factor, it is an important factor in influencing profitability. Therefore, the key to increase profitability is increasing productivity. However, the analysis of performance trends provided by finance performance monitoring tools for the financial years 2009 up to 2013, as indicated in Table 5.3 and Figure 5.4 have confirmed that the performance of such institutions, in terms of productivity and net profit percentage, is insufficient. Therefore, the FIs should adopt new electronic banking solutions such as internet banking development by FIs to augment their service delivery channels as a cheaper alternative to setting up branches are recommended. Following the recommendation may lead to improved results.

5.4.3 Market Share

Market share is calculated by taking the company's sales/revenues earned over the period specified and dividing it by the total revenues or sales of the industry over the same period. This metric is used to give a general idea of the size of a company in relation to its market and its competitors. To establish the market share, we used the financial statements (statement of comprehensive incomes and statement of financial position) for each bank. We added the total revenues for each bank in order to obtain the total revenues for the FIs in Uganda. The individual revenue per bank was then divided by the total financial institutions' revenue and we arrived at the percentage market share per bank and there after the market share for the 10 sampled FIs. The purpose of establishing the market share was to explain the performance levels of the FIs. Market share can also be used as an indicator of real performance (Jing and Avery, 2008). This view is further supported by Thomson (2010) stating that the market share is an essential ingredient for HPOs. Therefore, the knowledge of the market share for the FIs was intended to establish further the performance culture and (2) its relationship to best practices unique from the other institutions. The results are listed in Table 5.4.

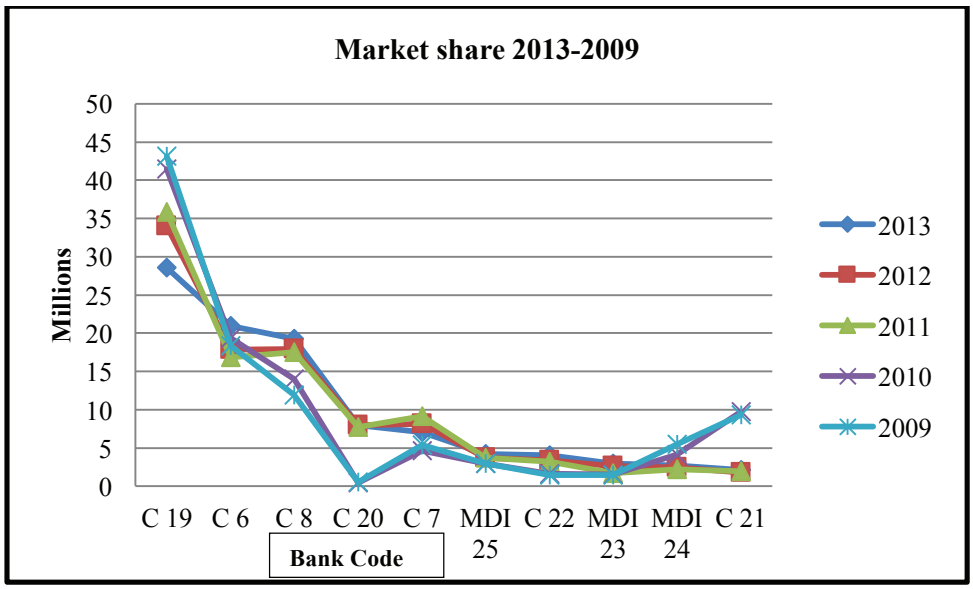
Table 5.4 Computed market share for FIs in Uganda for 2009-2013.

Bank Code	Market share 2013-2009				
	2013	**2012**	**2011**	**2010**	**2009**
C 19	28.56	34.01	35.86	41.48	43.17
C 6	20.97	17.89	16.88	19.36	18.35
C 8	19.26	17.93	17.54	14.01	11.93
C 20	7.99	8.00	7.75	0.49	0.50
C 7	7.07	8.15	9.18	4.65	5.40
MDI 25	4.22	3.76	3.71	2.95	2.93
C 22	4.05	3.38	3.18	1.61	1.45
MDI 23	2.99	2.60	1.73	1.57	1.47
MDI 24	2.73	2.48	2.23	4.10	5.46
C 21	2.15	1.79	1.95	9.76	9.34

Source: Archival data
Note: The total revenue for all FIs in Table 5.4 are presented in Uganda Shs. Millions ('000Shs).

Table 5.4 shows that there are three FIs C19, C6, and C8 that are monopolising the market, with C19 having the largest market share, C19 has 91 branches and C7 has one branch. The explanation can be that the FIs target (1) different customers' service, and (2) the industrial behaviour of their market. For example C19 takes the services to the people, by having branches all over the country, and C7 concentrates on the corporate environment which looks for its services. In addition, C19 was previously a public institution owned by government with branches all over the country. It was later privatised and the current owners inherited several constant accounts such as public service employees' salaries which are paid through their bank and this gives it an added advantage over the other FIs. The outcome of the findings for the five years show C21 having the lowest market share of all the FIs. The explanation can be that the C21 had not gained trust among the Ugandans, because it had been operating in Uganda for less than ten years by the time of the study. The observation implies that the conventional ways of conducting business by the other FIs may not be effective, and thus new business models need to be developed to provide competitive advantage within the sector. In line with Bagheri et al. (2012), the firm performance is influenced by the strategies and operations in the market as well as by non-market environments. The strategies employed by all the FIs need to be refocussed towards a model that can assist them to increase on their market share. A visualisation of the market share is given in Figure 5.5.

Figure 5.5 Market shares of FIs in Uganda for 2009 to 2013.



***Source**:* Archival data

Figure 5.5 shows that the market share for all the FIs is below 50%, and has been fluctuating for the past 5 years. The BoU analysis (see Appendix G) shows that C19 owns a quarter of all Ugandan assets. The remaining three quarters of the market is shared among the rest of the FIs. Moreover, the findings indicate that there has been an increase in the number of branches as an indicator of market share. However, the branches are mainly based in Kampala and the surrounding districts. The UBOS[11] report of 2011 indicates that Uganda has 23 commercial banks; however none has set up branches in a rural area apart from having branches in upcountry towns. Rural areas are devoid of formal banking services. Thus they rely mostly on village saving groups; otherwise people have to travel for miles to access banking services.

The finance sector is relatively concentrated because there are many registered FIs serving a limited number of customers in terms of market share of assets; the number of the bankable population is estimated to be 4 million Ugandans. Correspondingly the sector is not out of line with other developing countries (cf. Mugume, 2008; McKinsey, 2012) with the number of registered banks being 25 in Uganda, 40 in Kenya, 32 Tanzania, and 8 in South Sudan. The financial sector in Uganda is liberalised and therefore, commercial banks are free to set their own interest rates, both lending and deposit rates; there are no controls on these rates by

11 UBOS provides for the development and maintenance of a National Statistical System to ensure collection, analysis and publication of integrated, relevant, reliable and timely statistical information.

the BoU or the Government. The Central Bank Rate (CBR) was 11 % in 2013. This implies that access to funding is very high for an ordinary Ugandan. A reduction in the lending rates by BoU could help both the FIs and Ugandans to access financial services at a subsidised rate, because naturally the FIs have to shift the high CBR burden to the clients.

5.4.5 Summary of findings

The findings from Survey 1 on profitability and productivity levels of the FIs and the market share as computed from the audited financial statements are given in a more aggregated way which differ from other methods of measuring performance. Owing to the above findings, it is still possible to make fair tentative conclusions that the FIs continue to register robust growth in terms of profitability despite the high inflationary environment in Uganda. In essence, commercial banks should realise that the way forward is to reorganise and remobilise clients through the provision of high value economic services which grant reasonable convenience to clients. This strategy is hoped to increase bank deposits, which are the sources of bank profitability.

The productivity trends indicate that the total assets of FIs grew over the previous five years, and the banks remained well capitalised in the year 2013. All the FIs maintained their respective core capital levels above the statutory minimum capital requirements of BoU. The asset quality of the commercial banks has continued to improve. Still, from our observations we may conclude that the market share is monopolised by three FIs and that the (small) remaining market is shared among the rest of FIs in Uganda. What is crucial in the current financial sector is to ensure that the high value services are conveniently extended at low cost to the client. In this case, service providers that provide or offer relative advantages in terms of accessibility, convenience, speed, privacy, and cost-effectiveness are assured of the ready market.

However, we cannot rely entirely on the results with respect to the performance levels in FIs because the data from published reports are always aggregated in some way. So, they may not be suitable for generalisation, because the financial measures show profitability of the FIs in relation to their total assets and are associated to the operating margin of a firm. These measures are widely accepted from the accountancy point of view and can be considered as a more robust projection of HPO. However, they do not adequately satisfy the needs in other fields of research (Triguero, 2012). The non-financial measures such as the perception that employees and managers have on the performance of their organisations need to be used to come to constructive conclusions that may help an organisation to improve performance. However, we provide our conclusions based on the sample data analysed in subsection 5.8. Consequently, we carried out Survey 2. Among many other things employee satisfaction was sought.

5.5 The Set up and Results of Survey 2

In this section we try to establish the performance levels of FIs in Uganda as seen by the employees. Primary data was collected from employees by administering Waal's (2008) HPO instrument for self-assessment of the organisation's performance. The following guiding questions were considered.

(1) What are the levels of HPO?
(2) To what extent is the HPO framework applicable in the Uganda's FIs?
(3) What are the factors to be improved in order to achieve sustainable high performance?

For an organisation to be referred to as HPO it has to meet specific qualities typically attributed to high performing. Waal (2008) suggests an HPO framework that managers can use for self-assessment of their organisations. We submitted Survey 2 Questionnaire on the HPO framework (the HPO factors and their 35 characteristics, see Appendix B) to employees of the ten selected FIs in Uganda. Below we describe the set up and present the results. In subsection 5.5.1 we describe the applicability of the HPO framework. Then in subsection 5.5.2 the setup of the research is provided by outlining the sample description. In subsection 5.5.3 we present the results. In subsection 5.5.4 we compare the financial results and the HPO scores. In subsection 5.5.5 we compare the HPO status of FIs with banks worldwide. In subsection 5.5.6 we discuss the HPO factors, and subsection 5.5.7 describes the practical implications of the HPO framework.

5.5.1 The Applicability of the High Performance Organisation Framework

The applicability of the HPO framework depends on the willingness of an institution to assess its performance. We applied the HPO framework to ten FIs which were ready to participate via their employees after an explanation to the management. The HPO framework is a subjective measure of performance that has been applied in different organisations to establish their HPO status (cf. Waal, 2008; Waal and Frijns, 2011; Waal, 2012). As discussed in Chapter 2 the HPO framework has five factors with 35 characteristics. The significance of the HPO study is that the known factors for high performance can be used as a framework by companies to identify which actions these companies should undertake to become successful and remain so.

The Survey 2 Questionnaire on the HPO framework (see Appendix B) covered the following two main issues: organisational characteristics and general information. An organisation can find out its HPO status by having management and employees fill in an HPO questionnaire and calculating the average scores on the HPO factors. The HPO framework questionnaire has been applied to the employees of the ten selected FIs to find out the status of performance. Moreover, it served also as a test on the reliability of the HPO framework theory. Special

attention was paid to the matching of the characteristics of the HPO framework and the characteristics influencing the success of FIs.

5.5.2 Sample Description

The sampling technique involved stratifying the FIs according to the BoU listing as given in section 5.1. We selected 10 FIs, i.e., seven commercial banks and three MDIs. The fact-finding survey was carried out by submitting Survey 2 Questionnare on the HPO framework (see Appendix B) to a cross-section of employees in the ten selected FIs. The sample selection was influenced by the willingness of the organisations to participate in the study. We administered 50 questionnaires to employees of the FIs operating in Uganda at the time of the study, and forty usable questionnaires were returned. The data corrected was coded and cleaned for analysis (see Chapter 4).

5.5.3 Research Results

Before conducting the analysis a validity test was conducted on each of the five factors of the high performance framework and the full set of 35 items in the instrument. The level of significance for items was established at .03. The alpha score obtained for all the sections was above 0.80 and this is generally accepted for field research (cf. Hair et al., 2006). When the value of alpha is more than 0.60 it means that the research instrument is reliable for the purpose of the study. The data cleaning and exploration of missing values was done using means and the standard deviations. This was acceptable because we used a ten-point likert scale. The scatter-plots indicated a fairly good level of linearity. This level is an indication that the results are coming from the same population and the distribution is close. Tests for normality were made. It was established that the variables were normally distributed. For more details we refer to Chapter 4.

Descriptive statistics

The results of the descriptive analysis of the HPO factors in the FIs were used to establish the individual scores per FI in a fair way. The average means scores indicate that the main best practices of the FIs in Uganda could be found in the HPO factors: LTO, WQ, and MQ. The results of the mean scores are presented in Table 5.5.

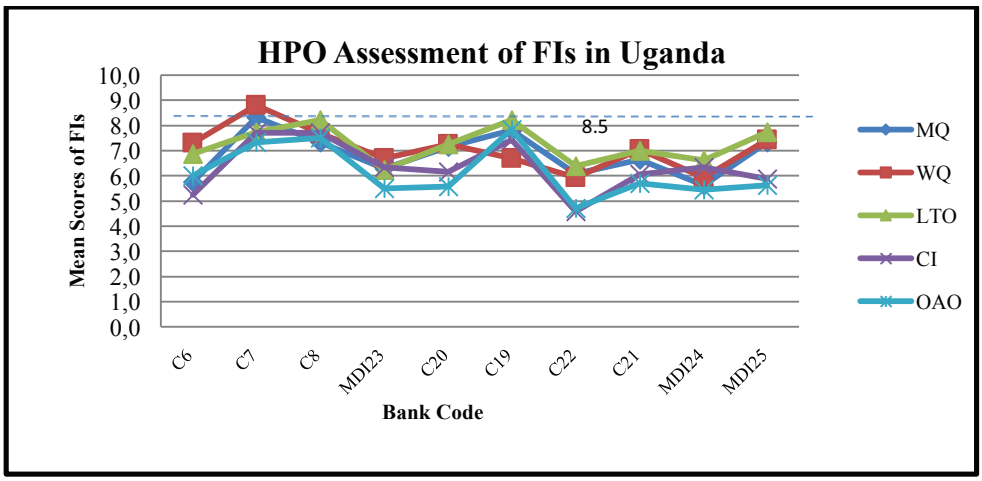
Table 5.5 The means scores of FIs on HPO.

Bank Code	MQ	WQ	LTO	CIR	OAO	Ave HPO Score
C6	5.8	7.3	6.9	5.3	6.0	6.3
C7	8.3	8.8	7.8	7.7	7.3	8.0
C8	7.3	7.7	8.2	7.7	7.5	7.7
MDI23	6.3	6.7	6.3	6.3	5.5	6.2
C20	7.2	7.3	7.3	6.2	5.6	6.7
C19	7.8	6.7	8.2	7.4	7.8	7.6
C22	6.1	5.9	6.4	4.6	4.7	5.5
C21	6.6	7.1	7.0	6.1	5.7	6.5
MDI24	5.6	5.9	6.6	6.3	5.5	6.0
MDI25	7.3	7.4	7.8	5.9	5.6	6.8
Total	**6.8**	**7.1**	**7.2**	**6.4**	**6.1**	**6.7**

Source: Primary data

The HPO diagnosis results in Table 5.5 show an average level of satisfaction of all the HPO factors above the score of 5.5. This implies that the factors are familiar to the respondents in the FIs and applying the HPO framework indeed helps an organisation to achieve better financial and non-financial results. The financial institution C6 has as highest HPO factor WQ with the mean value of 7.3, while the lowest factor was CIR and with the mean value of 5.3.The financial institution C7 has as its highest HP0 score "WQ" with an average score of 8.3, while the lowest HPO score was OAO It has a mean value of 7.3. The financial institution C8 has as highest HPO factor LTO with the mean value of 8.2 while the lowest factor was MQ with the mean of 7.3. The MDI23 has as highest HPO factor WQ with the mean value of 6.7 while the lowest factor was OAO with the mean of 5.5. The financial institution C20 has as highest HPO factor MQ & WQ with the mean score of 7.3 while the lowest factor was OAO with the mean of 5.6. The financial institution C19 has as highest HPO factor LTO with the mean of 8.2 while the lowest factor was WQ with the mean score of 6.7. The financial institution C22 has as highest HPO factor LTO with the mean score of 6.4 while the lowest factor was CIR with the mean of 4.6. The financial institution C21 has as highest HPO factor WQ with the mean value of 7.1 while the lowest factor was MQ with the mean score of 5.7. The MDI24 has as highest HPO factor LTO with the mean of 6.6 while the lowest factor was OAO with the mean score of 5.5. The MDI25 has as highest HPO factor LTO with the mean score of 7.2 while the lowest factor was OAO with the mean score of 5.6. The results in Table 5.5 indicate that the mean scores of the individual FIs on all the scores are below the 8.5 score. Please note a visualisation of the HPO assessment results of FIs is given in Figure 5.6.

Figure 5.6 HPO status of financial institutions in Uganda.



***Source**:* Primary data

Figure 5.6 illustrate the results of the analysis of each of these factors and the results obtained. The results show an average score of 7.0. The score indicates that the FIs are performing well, but they are not yet HPOs (see below). It was established that the FIs operating in Uganda can be considered as having average levels of performance given the scores. The findings show that FIs scored *reasonably well* on all characteristics of high performance since the rating is above the score of 5.0. The higher the HPO scores the better the performance of the organisation, and vice versa. LTO had the highest score, i.e., reasonably well. The scores for the other factors are just satisfactory and there is scope for further improvement.

In summary, the factors that scored highest for 10 FIs were long-term orientation and workforce quality. According to Waal (2008, 2010) and Waal and Frijns (2011), an organisation meets the requirements for being an HPO if it scores higher than 8.5 on all HPO factors. The financial institution C7 had as the only FI, the required score of 8.5 and above for the HPO factor WQ. A likely explanation could be that this is a foreign owned bank which has only one operational centre, and is considered an HPO in its country of domicile. Nevertheless, C7, C8, and C19 had an average score of 7.6 and above which shows that they are good performing FIs although not yet HPOs in Uganda.

The factor with the most room for improvement, in all institutions, is openness and action orientation which has an average mean score of 6.1. All in all, the results of Figure 5.6 can be considered as a good indicator for institutions that have not yet achieved the HPO status. It has to be noted however, that managers did not participate in the survey, which might

have created a positive bias especially for the factor work force quality. We discuss later the requirements for acting at HPO level.

To establish the internal relationships among the factors, correlations were computed and the empirical results support the positive and significant link between the HPO factors. The results are presented in Table 5.6.

Table 5.6 Correlation, mean, and standard deviation of the HPO factors.

Factor	MQ	WQ	LTO	CIR	OAO	Mean	Std Dev
Management Quality	1					6.84	2.05
Workforce Quality	.845**	1				7.08	2.06
Long-term Orientation	.747**	.644**	1			7.23	1.92
Continuous Improvement	.736**	.619**	.582**	1		6.35	1.90
Openness & Action Orientation	.708**	.673**	.674**	.727**	1	6.13	1.88

**. Correlation is significant at the 0.01 level (1-tailed).
***Source**:* Primary data

Table 5.6 shows that there was an inter-relationship between the HPO factors. This is an indicator of *internal consistency*. Our HPO study showed that there is a *direct* and *positive* relationship between the identified HPO factors; it may be seen as an indication that they are measuring the *same thing* (HPO). For visualisation of the results we refer to Figure 5.6. When an organisation scores higher on these five HPO factors than its peer group, the organisation also surpasses its peers financially and non-financially. We will carry out such a comparison of the HPO factors and the financial results.

5.5.4 The Comparison of the HPO and Financial Results

In this subsection we aim to compare our findings from the HPO diagnosis and the financial results of the ten FIs that were studied. The FIs belong to two tiers of the finance service sectors, namely the commercial banks and MDIs (see section 5.1), respectively. Waal (2012) asserts that the HPO diagnosis uses an absolute scale of 1 to 10 which makes it possible to compare the performance of multiple FIs to identify which FIs are 'more HPO' than others. For each of the ten FIs the average HPO score was calculated by the researcher, and a ranking was made from the highest scoring financial institution to the lowest financial institution. Then, the financial results over the past five years were collected for all 10 FIs, the financial results for profitability and productivity were computed using the Net profit margin and Return on Assets for all the 10 FIs and a ranking was made from the FIs with the best financial results over those five years to the FIs with the lowest financial results. Finally, we matched both rankings. The results are presented in Table 5.7.

The results in Table 5.7 show that the HPO ranking (column 1) and columns 2 contains the codes of the FIs. Column 3 contains the FIs financial ranking. Column 4 gives financial profitability, column 5 gives the productivity, and column 6 gives the market share.
The results are as follows.

For column 4, the HPO scores ranking and profitability: The matching yielded a clear group of "HPO leaders" which showed both the highest scores and the highest profitability financial results: FIs (C7, C8, and C19). The comparison also gave a clear group of "HPO laggards" which showed both the lowest HPO scores and the lowest financial profitability results: FIs (MDI23, C21, and C22).

For column 5, the HPO scores ranking and productivity: The matching yielded a clear group of "HPO leaders" which showed both the highest scores and the highest productivity financial results: FIs (C8, MDI25, and C7). The comparison also gave a clear group of "HPO laggards" which showed both the lowest HPO scores and the lowest results: FIs (MDI23, C22, and C21).
For column 6, the HPO scores ranking and market share: The matching yielded a clear group of "HPO leaders" which showed both the highest scores and the highest market share results: FIs (C19, C6, and C8). The comparison also gave a clear group of "HPO laggards" which showed both the lowest HPO scores and the lowest results: FIs (MDI24, C22, and MDI23).

Table 5.7 HPO ranking versus the financial ranking for FIs.

HPO ranking	FIs Code	FIs ranking	Financial Results ranking (Average % of 5years)		
			Profitability	Productivity	Market share
1	C7	1	C7 (40%)	C8 (7.06%)	C 19(36.62)
2	C8	2	C8 (29.62%)	MDI25 (6.62%)	C 6(18.69)
3	C19	3	C19 (25.66%)	C7 (5.20%)	C 8(16.13)
4	MDI25	4	C6 (21.88%)	C6 (4.62%)	C 7(6.89)
5	C20	5	C20 (17.34%)	C19 (4.42%)	C 21(5.0)
6	C21	6	MDI 25(17.02%)	MDI24 (2.56%)	C 20(4.95)
7	C6	7	MDI24 (12%)	C20 (2.00%)	MDI 25(3.51)
8	MDI23	8	MDI23 (7.16%)	MDI23 (1.92%)	MDI 24(3.41)
9	MDI24	9	C22 (7.14%)	C22 (1.89%)	C 22(2.73)
10	C22	10	C21 (1.50%)	C21 (-2.00%)	MDI 23(2.07)

Source: Computed from primary and secondary data

Generally, Table 5.7 shows that there was a direct association observed within FIs between the average HPO scores and the financial results. FIs (C7, C8, and C19) had the highest HPO scores and the highest financial results, and FIs (C21, C22, and MDI23) had the lowest HPO scores. It demonstrates that the state of performance in FIs had been assessed quite well in

relation to the HPO diagnosis. Therefore, implementing the HPO improvements suggestions would results into the financial results of the FIs improving considerably for a longer period of time.

When an organisation reaches an HPO status, this reflects on its profitability, return on assets, return on equity, return on investment, return on sales, and on total shareholders return (cf. Waal, 2012). We observe that of the three ratios, profitability correlates best with the HPO scores ranking, followed by market share, and lastly productivity. For many of the remaining FIs the match between the HPO scores and the financial results was quite close. The context was the same for all FIs as they used the same products, processes, and IT systems. All FIs were therefore, operating in the same manner and differences in HPO scores could only be explained by (a) differences in management and employees quality in the FIs and (b) differences in the way they perform and put emphasis on specific actions and issues. We note that events that happened in the past can influence the HPO status of an organisation for quite a long time. Management has to be aware of this when interpreting the results of the HPO diagnosis and deciding on subsequent actions. A possible explanation for C19 owning a quarter of all Uganda assets and having the largest market share could be attributed to its historical background.

5.5.5 Comparison of the HPO status of FIs with Banks Worldwide

In this subsection we discuss the findings from our Survey 2 Questionnaire for the HPO framework based on the HPO factors in comparison with the average HPO scores of banks worldwide. The HPO scores for banks worldwide was obtained from the HPO center (Netherlands) data base and a comparison was made to establish the ranking of the FIs in Uganda in relation to the HPO scores worldwide. The results are given in Table 5.8.

Table 5.8 Average HPO scores of banks worldwide and FIs in Uganda.

	HPO	Banks worldwide (n=896, AVG=6.7)	Uganda FIs(n=10,AVG =6.7)
Management quality	8.5	7.0	6.8
Workforce quality	8.5	6.5	7.1
Long-term orientation	8.5	7.2	7.2
Continuous improvement & renewal	8.5	6.2	6.4
Openness & action orientation	8.5	6.7	6.1
Average HPO score	*8.5*	*6.7*	6.7
HPO Factors	8.5	7.0	7.0

***Source*:** Secondary data (HPO Center)
Note: Banks worldwide are mainly European banks

The results in Table 5.8 indicate differences (i.e., small differences across the 10 FIs in terms of the following HPO factors: MQ, WQ, and CIR. However, in comparison, the results further indicate that only the average score of the factor OAO is below the worldwide score for the banks. The differences in results for the FIs in Uganda are most likely caused by the differences in the business environment. The findings are a confirmation that the HPO framework can be used worldwide in different circumstances and the diagnosis will provide helpful results for organisations seeking to attain the level of HPO.

Thus, adequate or even good ideas for improving the HPO factors can be identified from 'the best' FIs, from which other FIs can gain knowledge of how the HPO diagnosis operates. At the same time, because the HPO framework shows what is important without a provision of how the HPO factors should be improved, each FI should tailor these best ideas to their local circumstances. We observe that high performance does not have the same meaning for every organisation; certain organisations will value certain indicators or factors more than others. On the basis of the results, it was evaluated whether the FIs in Uganda focused on measuring their performance on traditional financial measures or non-financial (subjective) measures such as the HPO framework diagnostic test. We may therefore conclude that both measures of performance could be used by FIs to evaluate their performance.

5.5.6 Discussion of Results

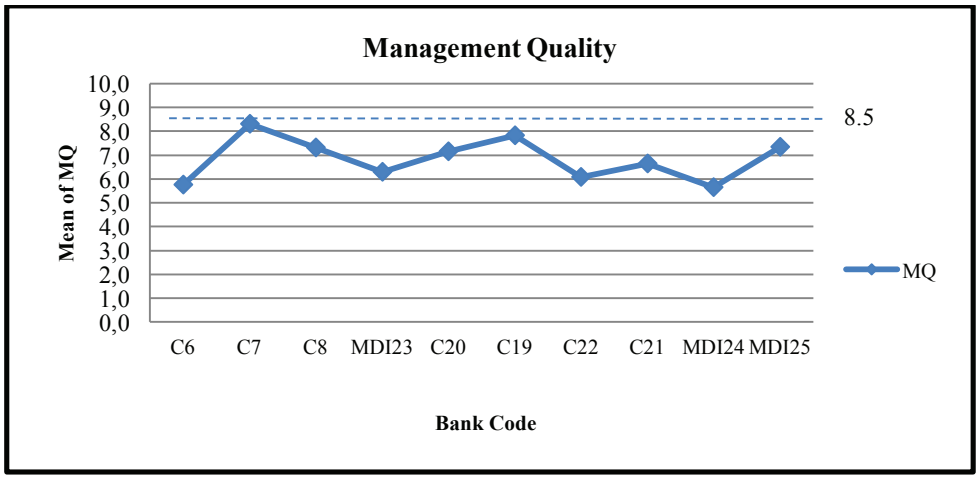
In this subsection we discuss the findings from our Survey 2 Questionnaire for the HPO framework based on the HPO factors: (1) management quality, (2) workforce quality, (3) long-term orientation, (4) continuous improvement and renewal, and (5) openness and action orientation.

1. HPO factor Management Quality

The first factor is *management quality*. An HPO's management combines many characteristics. In an HPO according to Waal (2012), "managers at all organisational levels maintain trust relationships with employees by valuing their loyalty, treating smart people with respect, creating and maintaining individual relationships with employees, encouraging belief and trust in others, and treating people fairly. Managers in an HPO work with integrity and are a role model to others, because they are honest and sincere, show commitment, enthusiasm and respect, have a strong set of ethics and standards, are credible and consistent, maintain a sense of vulnerability and are not self-complacent. The managers are decisive, action-focused decision-makers, avoid over-analysis and propose decisions and effective actions, while fostering action-taking by others. HPO managers coach and facilitate employees to achieve better results by being supportive, helping them, protecting them from outside interference, and by being available to them. Management holds people responsible for results and is decisive about non-performers by always focusing on the achievement of results, maintaining clear accountability for performance, and making tough decisions.

Managers in an HPO develop an effective, confident and strong management style by communicating the values and by making sure the strategy is known to and embraced by all organisational members" (Waal (2012). The findings indicate that the management quality in the Ugandan FIs is average, at a score of 6.8 (see Table 5.5). The scores on the HPO factor MQ for individual FI was examined and the results are presented in Figure 5.7.

Figure 5.7 Average FIs scores on HPO factor management quality.



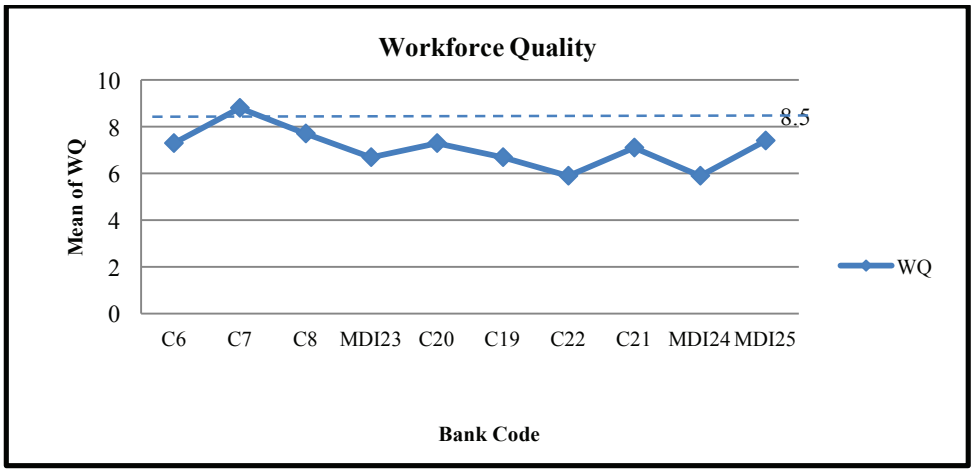
Source: Primary data

Figure 5.7 shows that the MQ is above the score of 7.0 in the five FIs (C7, C8, C19, C20, and MDI25). This implies that these FIs maintain trust relationships with people on all organisational levels by valuing employees' loyalty (etc see above). FIs (C7, C8, and C19) scored better on the factor MQ indicating that the management of the three FIs holds people responsible for results and is decisive about non-performers by always focussing on achievement of results, maintaining clear accountability for performance, and making tough decisions. However, for the other FIs the implication is that there is a need to pay attention to the management integrity and acting as role models which was established to be rather low, because the management has not always been able to fulfil their promises and obligations to the worker. Employees need better coaching from managers who should show more interest in humans and less interest in financial figures. This would increase employees' trust in management. However, management was genuinely interested in employees and clients, and people focused more on improvement and integrity. Moreover, there is a strong connection between trust and other characteristics of the HPO factors. When managers work on improving any of those factors, they are at the same time working on increasing the trust of employees.

2. HPO factor Workforce Quality

The second factor is *workforce quality.* According to Waal (2012), "an HPO makes sure it assembles a diverse and complementary workforce and recruits people with maximum flexibility to help detect problems in business processes and to incite creativity in solving them. An HPO continuously works on the development of its workforce by training staff to be both resilient and flexible, letting them learn from others by going into partnerships with suppliers and customers, inspiring them to improve their skills so they can accomplish extraordinary results, and holding them responsible for their performances and with that encouraging them to be creative in looking for new productive ways to achieve the desired results" (cf. Waal, 2012). The average score of all the FIs for the factor workforce quality is 7.13 (see Table 5.5) which is an indication that the FIs maintain an acceptable to rather high quality workforce in most of the departments. The scores of the individual FIs sampled are presented in Figure 5.8.

Figure 5.8 Average FI scores on HPO factor workforce quality.



Source: Primary source

Figure 5.8 shows that the WQ is above the score of 7.0 in 6 FIs (C7, C8, C6, C20, C21 and MDI25). The lowest score came from MDI24. The selected FIs encourage employees to accomplish extraordinary results so that they can be promoted if they are performing as expected. The institutions do not discriminate on gender, race, and creed. FIs believe that the human resource is one of the major assets of the bank and due care is taken at the time of recruitment promotion with a continuous skilling through in-house and external trainings. The FIs follows a policy of employing Ugandans among its staff, which is a requirement by BoU for foreign banks operating in Uganda. This has resulted in a diverse and complimentary

staff. Though the social-cultural environment in Uganda currently seems to be incompatible with attitudes, values, and behavioural norms necessary for a high workforce quality, the cultural diversity of employees from foreign banks has helped in the improvement of performance. Uganda is still a developing country and the social–cultural development concurs with the country's development. The assessment of the HPO factor confirms that without good employees the HPO can never be achieved.

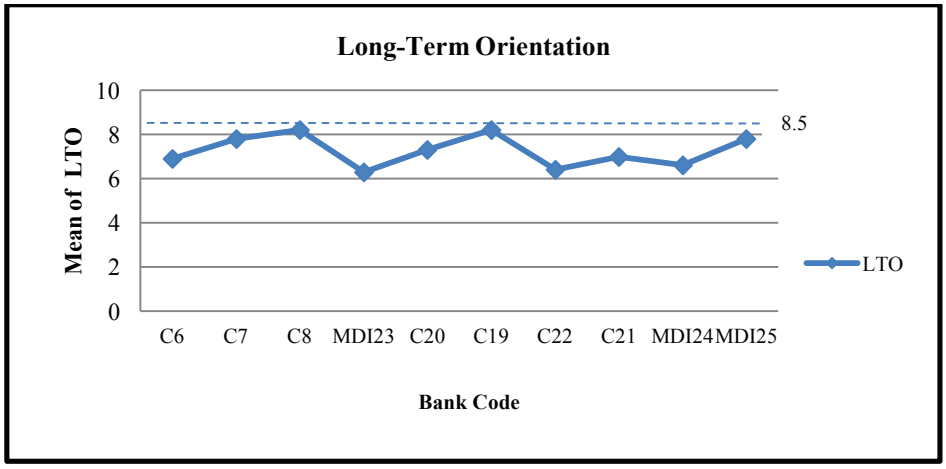
To increase the quality of workforce within the FIs there is need to concetrate on increasing the quality of employees by training them to become more flexible and resilient and by urging them to spend more time on communication and exhangeing knowledge and best practices, both inside and outside the organisation. In addition, the recruitment process should be aimed at attracting and hiring employees who are willing to accept responsibility and who want to be challenged by management to achieve extraordinary results. These employees must be coached in such a way that they can eventually transfer to management level (Kim, 2010).

3. HPO factor Long-term Orientation

The third factor is *long-term orientation.* In an HPO according to Waal (2012), long-term gain is far more important than short-term profit. This long-term orientation is extended to all stakeholders of the organisation, that is, shareholders as well as employees, suppliers, clients and society at large. An HPO continuously strives to enhance customer value creation by learning what customers want, understanding their values, building excellent relationships and having direct contact with them, involving them in the organisation's affairs, being responsive to them, and focusing on continuously enhancing customer value. An HPO maintains good long-term relationships with all stakeholders by networking broadly, taking an interest in and giving back to society, and creating mutual, beneficial opportunities and win-win relationships.

An HPO also grows through partnerships with suppliers and customers, thereby turning the organisation into an international network corporation. Management of an HPO is committed to the organisation for the long haul by balancing common purpose with self-interest, and teaching organisational members to put the needs of the enterprise first. They grow new management from their own ranks by encouraging staff to become leaders, filling positions with internal talents, and promoting from within. An HPO creates a safe and secure workplace by giving people a sense of safety (physical and mental) and job security and by using dismissal as a last resort (See Waal, 2012). The highest average score of the five factors being 7.2 was given to long-term orientation (see Table 5.5). The mean scores for the sampled FIs on the factor long-term orientation are presented in Figure 5.9.

Figure 5.9 Average FI scores on HPO factor long-term orientation.



Source: Primary data

Figure 5.9 indicates that all the FIs scored 6 and above on the HPO factor LTO. Six FIs (C7, C8, C20, C19, C21 and MDI25) respondents had a slightly significant higher score of 7.0 and above, which indicates that the FIs maintain good and long-term relationships with the employees. Which is also an indicator of a secure workplace for organisational members. The employees have been in the finance industry for a long time. Management is promoted for a considerable part from within the FIs, and there is a clear staff development and succession plan in some FIs. This has resulted into a well educated workforce with a large number having a minimum qualification of a University degree and above. The long-term orientation could also be due to the high levels of unemployment in the country, and this has resulted into employees being committed to their jobs instead of seeking for new opportunities.

Operationally, long-term commitment helps to improve efficiency of the banks' operations leading to high performance specifically for the relationship with stakeholders, partners, and customers. The FIs have tried to be stakeholder-driven, maintaining good and long-term relationships with stakeholders by networking widely, though mainly to the benefit of the institutions. The long-term commitment score was 7.2 which is an average score, not an HPO score. It implies that long-term commitment has a positive impact on performance in FIs in general, but also that the score of 7.2 should be improved.

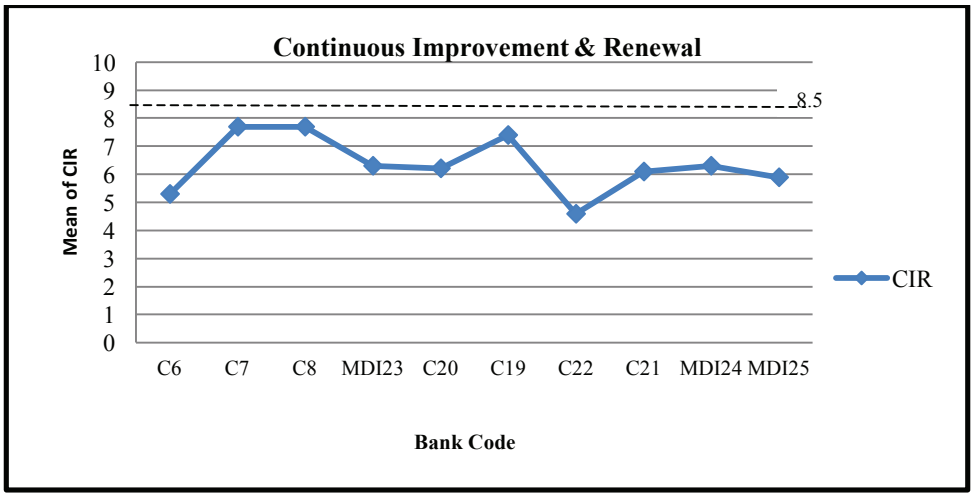
4. HPO factor Continuous Improvement and Renewal

The fourth factor is *continuous improvement and renewal*. The process of continuous improvement starts with an HPO adopting a unique strategy that will set the company apart by developing many new alternatives to compensate for dying strategies. After that, an

HPO will do everything in its power to fulfill this unique strategy. It continuously simplifies, improves and aligns all its processes to improve its ability to respond to events efficiently and effectively and to eliminate unnecessary procedures, work, and information overload. The organisation also measures and reports everything that matters, so it measures progress, monitors goal fulfillment and confronts the brutal facts. It reports these facts not only to management but to everyone in the organisation, allowing all organisational members to access financial and non-financial information needed to drive improvement.

People in an HPO feel a moral obligation to continuously strive for the best results. The organisation continuously innovates products, processes and services, constantly creating new sources of competitive advantage by rapidly developing new products and services to respond to market changes. It also masters its core competencies and is an innovator in these core competencies by deciding on and sticking to what the company does best, keeping core competencies inside the firm and outsourcing non-core competencies (cf. Waal, 2012). The average score of all the FIs for the factor CIR is 6.4 (see Table 5.5). The scores of the individual FIs sampled were also extracted and are presented in Figure 5.10.

Figure 5.10 Average FI scores on HPO factor continuous improvement.



Source: Primary data

Figure 5.10 shows that the following FIs (C7, C8, and C19) had a score above 7.0 and the rest are below. This implies that the institutions' processes have been quite slow in terms of improving and aligning the different departments and functions. The latter two are still some of the major challenges possibly accounting for the low score of 6.4, which is quite below the required HPO score of 8.5 (cf. Waal, 2010, 2012). Improve process management

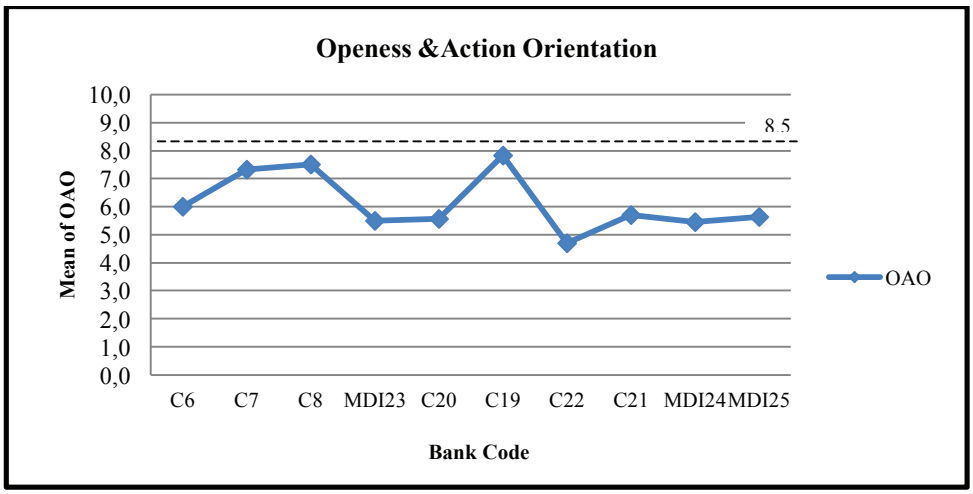
within the organisation (HPO characteristic 3&4) they must make sure that the processes are really improved, simplified, and aligned to be able to strengthen the organisation's client dedication. The FI managers need to spend a lot of time explaining strategy to the branches because it is the branch people who have to know and understand the strategy. In order for them to assist the FIs make a difference to the customers.

Banks have to focus on improving the quality of their products/and service in order to ensure sustainable performance over a long period of time. This trend starts with an HPO adopting a strategy that differentiates the institution from others in the sector by developing many new opportunities and alternatives to service its clients. After that, the institution will do all it can to execute this unique strategy. We note that the products of FIs are bulk commodities; they look more or less the same in all banks.Therefore, setting themselves apart is difficult though possible; for example, some FIs have introduced new products, such as ATMs and flexible banking., with as consequence that the other banks quickly copy these products. Though, studies have established that a stand-alone implementation of new information and communication technology (ICT) systems does not help the organisation to perform better over time (see Waal, 2010).

5. HPO factor Openness and Action Orientation

The fifth factor, *Openness and action orientation.* In addition to having an open culture, an HPO uses the organisation's openness to achieve results. In an HPO, management values the opinion of employees by frequently having dialogues with them and involving them in all important business and organisational processes. HPO management allows experiments and mistakes by permitting employees to take risks, being prepared to take risks themselves, and seeing mistakes as an opportunity to learn. In this respect, management welcomes and stimulates change by continuously striving for renewal, developing dynamic managerial capabilities to enhance flexibility, and being personally involved in change activities. People in an HPO spend a lot of time on dialogue, knowledge exchange and learning in order to obtain new ideas to improve their work and make the complete organisation performance-driven (cf. Waal, 2012). The average score for all FIs from the data was 6.1 (see Table 5.5). We tried to establish the individual score for the HPO factor OAO and the results are presented in Figure 5.11.

Figure 5.11 Average FI scores on HPO factor openness and action orientation.



Source: Primary data

Figure 5.11 show that the following FIs (C7, C8, and C19) had a slightly higher significant score than the other FIs on the factor openness and action orientation. The other F1s scored below 7.0. The sole exception was C22 assessing the factor OAO at the mean value of 4.7 which is quite low. The results indicate that there is little communication and dialogue among staff which makes knowledge exchange and learning difficult in FIs. There existed a feeling among employees that they were not really listened to by higher levels. A possible explanation could be that the FIs in Uganda are owned by organisations from diverse countries with different cultural backgrounds. This is emphasised by Beck and Hesse (2009), who established that the banking market has experienced a significant increase in foreign ownership over the past years.

However, there is a clear feedback mechanism in some of the FIs; for example, they have a weekly newsletter where they report issues happening in their institutions. However, real issues such as profitability are rarely reported. Management sometimes enjoys dialogue with employees mainly to solve a crisis. The FIs have clear standards to be met. Moreover, rules and regulations are usually quite clear to protect the reputation of the institutions. Admittedly, the rules and procedures are rigid; making mistakes is not tolerated. All in all FIs are basically performance driven and customer oriented.

5.5.7 Practical Implications of the HPO framework

Following the application of the HPO framework in FIs in Uganda, we found essentially two factors that managers have to deal with: (1) continuous improvement and renewal and (2)

openness and action orientation. Two of the improvement themes (each HPO factor can be seen as one theme) are identified below.

First, the continuous improvement and renewal (score 6.4) has as its managerial implications that (1) FI's continuously simplify, improve, and align all their processes to develop their ability to respond to events efficiently and effectively and to eliminate unnecessary procedures, work, and information overload. (2) The institution also measures and reports everything that matters, and thus rigorously measures progress, consequently monitors goal fulfilment, and confronts the brutal facts. It reports these facts to management and to everyone else in the organisation so that all organisation members can access the financial and non-financial information they need to drive improvement, and (3) FI's master and innovate their core competencies by deciding, and sticking to what the institutions do best, keeping core competencies inside the FIs and outsourcing non-core competencies. A further implication is that (4) the FIs should continuously innovative products, processes, and services, thus creating new sources of competitive advantage by rapidly developing new products and services to respond to market changes.

A further implication is that the management knows for sure that HPO factors will determine the HPO status of the organisation. This can be done by distributing the Survey 2 Questionnaire for the HPO framework (see Appendix B) among managers and other staff members to identify the HPO status of the organisation. The detailed scores on the HPO factors show the strong points and the organisational points to be improved. They will set the action agenda for the transitions to HPO (cf. Waal, 2010). Conducting this study (i.e., studying the results for the generalisations) is part of the possible suggestions that may support the growth of performance of Uganda's financial system.

Second, the HPO factor openness and action orientation (score 6.1) has to be improved on. Since the HPO factor OAO concerns characteristics that create an open culture in the organisation and use the openness to take dedicated action to achieve results. Waal and Frijns (2011) suggest plenty of potential improvements that FI's in Uganda can adopt, that (1) management values the opinion of employees by frequently engaging in dialogue with them and involving them in all important business organisational processes, that (2) management allows experiments and mistakes by permitting risk-taking, taking risks themselves, and regarding mistakes as an opportunity to learn. (3) In this respect, management welcomes and stimulates change by continuously striving for renewal, developing dynamic managerial capabilities to enhance flexibility, and being personally involved in change activities. A further improvement is that (4) People in an HPO spend a lot of time on communication, knowledge exchange, and learning to obtain new ideas to do their work better and make the entire organisation performance driven.

By far, the most impactful factor in the sector is the workforce quality. The implication is that to increase organisational productivity the FIs are hiring and retaining employees with exceptional capabilities and self-motivation. Working together, both managers and HR officers can attract, hire, develop, and retain individual employees who are agile, high-performing, and continuous learners and innovators. Even the best employees cannot perform without great managers, proper direction, support, tools, and resources. From this analysis we may conclude that more exposure to an opportunity to utilise the HPO framework may lead to improvements in performance. Improvement plans should at all times include action to increase the quality of FIs management and operations. In addition, tangible action plans should be developed for improving the other HPO characteristics of the HPO framework.

The findings of this study will provide corporate leaders and scholars with valuable input regarding key elements of a successful HPO in Uganda. We propose that in addition to the existing critical HPO frameworks (among others, AMA, 2007), Waal 2008 HPO framework should be recognised by scholars as a model that managers can utilise to sustain good results over a long period. This is in line with previous findings by Freeman and Zollo (2009) who suggest that promoting an HPO model is an important perceived success factor in itself. We believe that among others this study will assist the FIs in Uganda and other developing countries in developing capabilities to utilise and create new business opportunities as well as creating sustained competitive advantage through the use of the HPO framework.

In conclusion we note that, the transition to an HPO takes an average of 3 to5 years (see Abrahamson, 2004; Sirkin et al., 2005). Therefore, FIs need to pay attention to the dynamic capabilities theory (cf. Teece and Pisano, 1994; Teece, 2009), which emphasises unique and inimitable resources that are embedded into the employees, but that an organisation should put these resources into action in a flexible and adaptive way. Irrespective of the approach management adopts, it depends upon the alignment of internal systems with the larger environment within which the organisation is located. We observe that high performance does not have the same meaning for every organisation; certain organisations will value certain indicators or factors more than others. It would be inaccurate to compare organisations across the same high performance indicators. The general analysis shows that there is a promising future in the quest for HPO.

5.6 The Field Work Results for KM

In this section we present the current state of KM practices. According to Islam et al. (2007) and Schiuma (2011), organisations can realise the full value of their knowledge assets only when they can effectively manage the KM processes. To be measured, KM practice need to be categorised since knowledge in an organisation goes through many processes. The objective was to generate knowledge sharing channels that were used to discuss and

evaluate KM practices and their impact on the performance. A number of indicators were identified for each KM practice. From our conceptualisation of KM, we concentrated on the three processes on KM to establish the KM practices. These are presented below: knowledge acquisition in subsection 5.3.1, knowledge dissemination in subsection 5.3.2, and knowledge responsiveness in subsection 5.3.3 (see the UFI model for HPO, Figure 3.6).

5.6.1 Knowledge Acquisition

Organisations need to acquire knowledge about suppliers, customers, new products and services, and about their competitors within the industry. They do so to (1) generate new knowledge, new ideas, and new strategies for process improvement and (2) to be able to benchmark the performance in order to compete in the business world. The ability of the individual to acquire knowledge and use it properly and in a timely way for decision-making is important for an organisation. The FIs have several activities as sources of acquiring more knowledge.

FIs acquire knowledge from both internal and external sources. Four areas were identified as the main sources of knowledge acquired internally. (1) *Recruitment:* FIs acquire knowledge through the process of recruitment by the HR sections which identify people who have experience and skills on recruitment for training institutions, banks, and other organisations. (2) *Training and development:* FIs acquire knowledge through training sessions and development of the recently recruited and the existing employees. FIs also acquire knowledge from attending seminars and workshops. (3) *Policies and procedures:* FIs have policies and procedures as a source of knowledge especially for new employees; they are in the form of, brochures, pamphlets, and product handbooks. Finally, (4) *Information technology tools*; knowledge is acquired in FIs through intranet and internet, telephones, search engines, and facsimile.

At the same time, the FIs acquire knowledge internally by tapping into the knowledge of its staff, learning from experiences, and implementing continuous process improvements. It was noted that most of the employees of the FIs acquire knowledge through several knowledge facilities that the FIs have put in place, for example, a library. Nowadays, we may advise them to provide training courses on electronic learning.

Then the external sources of knowledge acquisition were identified in the FIs. We mention ten of them (1) networking within the sector and other professional bodies, such as UIBFS, (2) benchmarking best practices and obtaining information from other organisations, (3) attending conferences, (4) hiring consultants, (5) monitoring economic, social, and technological trends, (6) collecting data from customers, competitors, and resources, (7) hiring new staff, (8) collaborating with other organisations, (9) forming joint ventures, and (10) establishing knowledge links with business partners.

The means to better decision making relies in obtaining relevant, accurate, and timely information, as well as in using the cognitive capabilities of the individual. The goal is then translating information into knowledge and into effective decision making (cf. Nemani, 2010). Our finding is that the policies and procedures, mediums, and programmes are diverse in the FIs. Therefore, acquiring timely information in most of the FIs is still a fallacy because the IT used in most of the FIs is obsolete and outdated, making it difficult for the employee to acquire the knowledge needed in time to take a decision to assist a customer.

5.6.2 Knowledge Dissemination Practices in FIs

To establish the knowledge dissemination practices in Uganda, we concentrate on three areas of activity: (1) the individual level, (2) the team work, and (3) the work environment. We represent some of the findings pertaining to knowledge dissemination practices that exist in FIs in Uganda as perceived by the sample group.

(1) The *individual level:* employees suggested (a) that knowledge dissemination activities at an individual employee's level involve frequently disseminating knowledge in their knowledge circles, and (b) that they feel comfortable to share knowledge to assist each other. Individual and group competencies increase social awareness and positive capabilities, which can be linked to various development actions. The current approach is in accordance with some earlier studies (Luthans and Youssef, 2007; Haslam et al., 2011). There is an urge to make individuals feel obliged to disseminate knowledge to those who need it in order to increase the performance of the organisation.

(2) The *team work:* there are many team building activities in FIs, e.g., outing, get together meetings, and football competitions. Moreover, there is delegation as an on-job training and development activity for management. Management also identify mentors and coaches who have experience for other employees. Knowledge dissemination or the proactive knowledge dissemination is suggested as the most frequently used in the FIs, especially for the MDIs, since their services involve working in teams. A big number of their customers are semi-illiterate and the employees need synergy from each other to sell their products.

(3) The *work environment:* knowledge dissemination is practiced formally by the employee towards the manager and vice versa. General knowledge and skills about banking services and customer care are shared freely in the work environment (i.e., offices, cafeteria, and banking halls) among the employees to improve their performance. Knowledge is exchanged, distributed, and made accessible to the relevant stakeholders, mainly through meetings, on-job training, mentorship programmes, job rotation, newsletters, and workshops.

In agreement with Kjaeraard and Kautz (2008), we acknowledge that most KM practitioners realise that it takes several years for knowledge dissemination and knowledge activities to

become embedded in an organisation's culture and day-to-day business practice. However, the FI employees are proactive and involved in assisting each other to learn specific skills, such as the accounting software mainly used in FIs.

5.6.3 Responsiveness to Knowledge in FIs

The responsiveness to knowledge in FIs is analysed using three activities that are identified from the respondents' views: individual, intra-organisational, and external. A summary of the findings from the employees is discussed at three levels. (1) *At the Individual level:* the FIs place the human resources in the right places and they try to retain the skilled employees for mentorship. (2) *Intra-organisational:* the FIs appraise their staff and receive reports from different departments and branches. The employees write responses to annual reports, internal letters, and memoranda. A number of commercial banks have a library, information databases, and record offices. New innovations are communicated to staff through newsletters, by which they are also encouraged to respond. (3) *For the response to the external environment:* the FIs conduct customer workshops to get feedback on services provided; they have a customer care team and a sales team which have to give information to customers. The FIs respond to reports from the external sources, e.g., BoU, Uganda Revenue Authority (URA), and MFPED.

The findings indicate that the FIs respond to knowledge in several ways: (1) performance indicators, (2) performance appraisals, (3) retention of the best employees that have a career path plan which they can develop so as to continue to use their skills, and (4) several internal activities where the internal customer can channel his response for better performance in the FIs in Uganda.

The literacy levels in Uganda are very low, with only 11 % of the population having a degree and above. This confirms the fact that there are very few Ugandans in employment who can deal with and respond to knowledge effectively when acquired and disseminated in the organisations. Technology is the medium and instrument to ensure that the KM aims and objectives are attained. Computer-based technology has over the years transformed the way in which individuals and organisations accomplish knowledge work by amplifying, complementing, leveraging, and (in some cases) improving innate human knowledge handling capabilities (Mankin, 2009). However, it was established that some FIs do not have sufficient computers for every employee.

The research results indicate that there are some initiatives to steer the establishment of a KM policy in FIs by the BoU. However, these initiatives had not managed to come up with a significant policy document for the institutionalisation of KM in the sector. Therefore, it is necessary and imperative that managers and employees aggressively engage in KM practices so as to be able to raise their sustainability to higher levels. From the discussion

it is evident that most of the FIs in Uganda operate at very low levels compared to other economies in the Western world, Asia, and Europe. The major reason can be attributed to non-engagement of the measures.

5.7 Business Challenges Faced by FIs

In this section we discuss nine business challenges faced by FIs in Uganda. We use business challenges as a term of the combination of economic obstacles and weaknesses. The nine challenges are (1) competition, (2) mobile money services, (3) effective knowledge management, (4) lack of skilled labour, (5) contractual and informational framework, (6) deteriorating position of Ugandan business, (7) financial literacy gaps, (8) the culture, and (9) the conflict of interest. We analyse all the business challenges faced by the FIs and select the two most significant business challenges (core problems) as research items to be addressed in our study, viz. competition and effective knowledge management (see 5.7.10).

5.7.1 Competition

The FIs in Uganda work under stiff competition, based on the Global Competitive Surveys (GCS) conducted by the World Economic Forum (WEF) which rank participating countries according to their performance in business climate. In overall statistics, Uganda was ranked 129 out of 148 countries in 2012-2013. During the past six years, the Uganda position in relation to the macroeconomic environment has worsened over time; as illustrated in Table 5.9.

Table 5.9 Trends in Uganda's performance in the global competitiveness surveys.

Competitiveness-ranking-index	2006/07	2008/09	2009/10	2010/11	2011/2012	2012/2013
Uganda/overall-ranking	113/125	128/134	108/133	118/139	126/144	129/148
Macroeconomic environment	66	92	73	114	116	133

***Source*:** World Economic Forum (WEF), Global Competitiveness Reports.

Table 5.9 indicates that Uganda's overall ranking was 126 out of 144 countries surveyed in 2011/12. Thus Uganda slid further in business competitiveness (basic factors used for the rating of competitiveness include: corruption, inflation, infrastructure, and access to finance). The rate of financial penetration in Uganda is less competitive compared to Kenya and Tanzania, and this has made credit access quite difficult. The highly competitive environment is intensified by the entry of foreign and niche banks, and increased product of service offerings. Competition has rushed in the regional banking industry, with the number

of registered banks being 40 in Kenya; Uganda has 25 banks, Tanzania 32, and South Sudan 8. So far, Uganda which is our case study could aim at improving their competitiveness, because according to various competitiveness indices[12] its competitiveness worldwide is very low (See, e.g., Blanke, 2007, pp. 20; Ishengoma and Kappel, 2011).

Our conclusion reads: The financial sector has high competition in an already crowded banking sector. In summary, the FIs in the rest of the world have a competitive advantage over them.

5.7.2 Mobile money services

The advent of mobile money, a platform which allows people to use their mobile phones like wallets to transfer money, pay for goods and services and conduct banking services, has started to have a transformative effect at a faster pace as previously envisaged (Kamukama and Tumwine, 2012).This platform offers the new services to move money from place to place and present an alternative to the payment systems offered by banks, remittance firms, pawn shops, and others. Mobile money services have the potential to offer speedier and more cost-effective service delivery than the traditional commercial banks. The drastic increase in the number of people using mobile money could be attributed to the above merits. During the year 2012, mobile money services registered a significant growth as shown in Table 5.10.

Table 5.10 Performance of mobile money services.

Year	Number of transactions (,000)	Value of transactions (Ushs. billion)	Number of registered customers
Dec-2010	28,816	962.7	1,683,713
Dec-2011	87,481	3,752.90	2,879,968
Dec -2012		904	5,662,871
Dec 2013		1.4	12,117,821

Source: Bank of Uganda

Table 5.10 indicates that the mobile money services registered customers in a period of one year almost double and the amount of money transferred by customers rose over the same period. The entry into the market of mobile money services has raised the level of competition among the FIs, namely in transferring finances. In addition to mobile money services offered by Mobile Telecom Network (MTN) Uganda, other providers who entered the market include: Uganda Telecom limited (UTL), Airtel Telecom Limited, which also began offering mobile money transfer services. Mobile money has been a revolution that has helped many Ugandans to be financially included.

12 World Economic Forum, Global Competitiveness Reports 2003-2010.

Our conclusion reads: The introduction of mobile money services has threatened the FIs operations and reduced further the number of their customers.

5.7.3 Effective knowledge management

In spite of the employee's utilisation of computer-based technology, software and network systems, there has been a further enhancement to the discovery, capture, dissemination, analysis, storage, and application of knowledge. The biggest percentage of employees is not computer compliant. According to the recent statistics 2011/2012 (UBOS report) Uganda has a population of approximately 34 million, of this population 30% live in the city which is the environment of the population of our study. Out of those who are employed in organisations and are computer literate, only 10% have personal computers on their desks where they can easily acquire and disseminate timely information that is vital for competitive advantage and eventually lead to HPO. The majority of those who are computer literate can only use it for basic packages or word processing.

Moreover, Value added services (VAS) such as the use of the social network like twitter, Skype, YouTube, face book, bulk messaging, games and pranks are on the rise with the growing use of data, which has enhanced global knowledge sharing in most developed countries. All these are applications accessed through the internet which is quite rare and expensive to access for most Uganda's institutions. For example, information from the International Telecommunications Union (ITU) indicates that internet usage in Uganda rose from 40,000 in 2000 to 2 million in 2008 and to about 5 million in 2012. The usage is further limited in the FIs, for example, the emerging importance of mobile wireless accounts is the order of the day, but in Uganda an estimated of only 977,500 wireless accounts and 88,786 fixed accounts at the end of 2011 was realised.

Globally, information is currently accessed through modern applications which are yet to be accessed by employees in most institutions because they are not computer compliant as is the case in developed countries. The internet facility is rather expensive for an ordinary civil servant to afford per month; this has resulted into the untimely and unreliable practices of KM such as the use of the Postal and Courier services. Available data indicates that the volume of letters handled by Posta Uganda increased by 54.3% from 2.4 million in 2010 to 3.7 million in 2011. Parcels received from abroad increased by 45.7% from 12,931 in 2010 to 18,800 in 2011. The biggest volume of total letters was posted internally either from up-country offices to the general post office or vice versa. Likewise, the biggest volume of parcels was posted internally. However, lack of knowledge, experience, technology and expertise could be improved if bankers shared their experiences despite their shortcomings and migrations of staff. This was further substantiated by the council president of UIBFS in his speech, "If the bankers shared knowledge and experience effectively, the customers

will also get to experience financial products present in neighbouring countries observed" (Odera, 2012).

Our conclusion reads. The FIs are using capabilities that arise from knowledge assets that can be easily imitated and replicated.

5.7.4 Lack of skilled labour

The biggest challenge faced by FIs is lack of skilled labour (experts in the FIs operations), resulting into high labour turnover, which has caused FIs to incur high costs of training and development. The KM practices that were identified in the study may not be effective at a time when the pace of change within the sector has accelerated to retain knowledge. This has resulted into experienced employees (who are quite few in the labour market), either to take on new roles or leave the institutions. As a consequence, remaining employees often lack general knowledge about the operations of the institution.

Our conclusion reads as follows. If the banking sector emulates global trends in reducing the number of employees, productivity levels need to be improved. There is a growing need for highly skilled people, particularly in specialised areas of the bank, e.g., e-banking.

5.7.5 Contractual and informational framework

FIs in Ugandan operate in a challenging contractual and informational framework, with high contract enforcement costs (Fin Scope report, 2009)[13]. While reforms, such as the introduction of a Commercial Court have provided positive signals, deficiencies in asset and company registries and the absence of a credit information registry until recently have increased lending costs for both borrowers and lenders (see Beck and Hesse, 2009; Kamukama et al., 2011).

Therefore, our conclusion reads that: the number of FIs that modify to HPOs and make a substantial contribution to economic growth is limited.

5.7.6 Deteriorating position of Ugandan business

The deteriorating position of Ugandan business climate is related to limited improvement of factors constraining organisations performances, including factors like corruption, limited sources of finance, and operational high taxes. Operating a business in the Ugandan environment is a rather big challenge to the FIs. According to a survey carried out by

13 Fin Scope Uganda is a nationwide survey of the demand and use of financial services in Uganda. It was implemented with financial and technical support from the UK Department for International Development's (DFID) Financial Sector Deepening (FSD) Project. In examining the use of financial services, the survey focussed on areas of particular interest to Ugandan stakeholders, including consumer issues, agricultural finance, and the informal sector.

Steadman Group (2008), about 8.1 million Ugandans do not use services of commercial banks or informal groups due to insufficient income to open or maintain bank accounts. Majority of Ugandans, contrary to reports, actually save a great deal of money; however most of these savings are outside streamlined FIs, which is not healthy for the economy. Such savings cannot be used to generate meaningful economic activity while at the same time they cannot be supervised by the financial regulator.

Our conclusion reads: This has resulted into slow economic growth at 3.2 % in the year 2010/2011, yet the population is growing rapidly, e.g., estimated at 34 million (2011)[14].

5.7.7 Financial literacy gaps

The financial literacy gaps are responsible for the short lifespan of many enterprises, particularly those falling under the SMEs bracket. The SMEs are the real engine of growth in Uganda, where most of the rural poor venture to improve their levels of income. Prior studies indicate that financial literacy has implications for financial management behaviour in general (cf. Agarwal et al., 2007). The country suffers from a wide financial education vacuum. People who are financially literate and are able to make sound financial decisions for themselves and their families and make informed choices between financial products and services are quite few especially among the women (see McKenzie and Weber, 2009). For example, the interest rates offered by the FIs are rather unrealistic to the rural poor to benefit from the services. Below we provide some insight into numbers and relations in Table 5.11. The challenge can be deduced from Table 5.11.

Table 5.11 An overview of policy & regulatory classification of Uganda's financial sector.

Financial sector Tier	Type of FIs	No of FIs	Regulatory body	Majority of the clientele
1	Commercial Banks	23	BoU	Non-poor
2	Credit institutions	6	BoU	Non-poor
3	Micro finance Deposit Taking-Institutions	5	BoU	Non-poor and Active-poor
4	Credit only and member owned FIs	1,246	Various bodies, including the department of Cooperatives, but not BoU.	Active poor

Source: Fin Scope report 2009

Our conclusion reads: Most of the FIs are for the non-poor, leaving the poor at the mercy of the IFS, i.e., the credit only and member owned FIs.

14 UBOS report 2011/12

5.7.8 The culture

The banking culture is poor with a few Ugandans owning bank accounts, with the estimates showing that the country has only four million bank accounts for a population of 34 million. Previous studies (cf. Bwire and Musiime, 2008) suggest that banks have not been easily accessible to most Ugandans. This has resulted in poor cash flows in the FIs, inadequate liquidity (makes banks capital intensive) mainly, and the products and services provided are limited. This point of view is consistent with Morawczynski et al. (2009) who argue that customers use financial services that they find convenient, reliable and affordable. This has limited the FIs capacity to reach the rural areas.

Our conclusion reads: Uganda has a growing but saturated market. Even though Uganda has witnessed good growth in its banking sector, penetration has continued to be slow, stagnating at about 4 million bank accounts.

5.7.9 The conflict of interest

There are conflicting interests in FIs. The largest numbers of FIs operating in Uganda belong to a wider banking group. The risks are from the institutions that are not part of the groups. Some of the issues commonly arising in banking groups are conflicts of interest and contagion. So, our conclusion reads: That the relationships to the other entities in a group are creating risks in operation.

5.7.10 Two challenges selected

For our study we identified two challenges: effective knowledge management (5.7.3) and the deteriorating position of Ugandan business (5.7.6).The criteria for the identification of the two challenges was based on the preliminary findings from Survey 1 (see subsection 5.4.5) and Survey 2 (see subsection 5.5.7). We will concentrate on these two challenges for further research of the UFI model for HPO in Uganda. Knowledge management is discussed in detail in Chapters 6 (particularly section 6.10). In chapter seven we discuss the mediating variable viz. knowledge management in the relationship between the HPO framework and high performance, (particularly in section 7.4).

The commercial banks registered modest growth while the industry continues to drift through a number of challenges. According to BoU Governor (2012), in his communication he stated that “the banking industry remains profitable although there has been a slow-down in real economic growth, affected by high inflation, high interest rates and the general increase in the cost of doing business.”

5.8 Chapter Conclusions

This chapter presented the importance of the FIs to Ugandans. Below we provide six conclusions (5.8.1), an answer to RQ2 (5.8.2), and an answer RQ3 (5.8.3).

5.8.1 Six Chapter Conclusions

Based on the investigations reported in this chapter, we arrived at six conclusions. They are formulated below.

First, from the discussions, we may conclude that FIs in Uganda contribute to the growth of the Ugandan economy mainly through (1) providing essential financial services, (2) providing benefits on the domestic economy, (3) contributing to business performance, and (4) poverty reductions.

Second, it was established that the performance of FIs in Uganda is essentially evaluated by quantitative analysis of financial ratios (Survey 1). From the analysis of the profitability and productivity ratios, we may conclude that past experiences such as the performance levels can determine the willingness of institutions to adapt the HPO framework to have an alternative approach to analysing their performance. The financial performance trends of the FIs in Uganda rotate from high to low; whereas some banks are in a drive to close the existing branches because they are not profitable, others have entered the market and reaped huge profits and opening new branches.

Third, although traditionally the performance of banks is evaluated by quantitative analysis of financial ratios, the study was able to demonstrate that the HPO framework can be used to identify and explain performance differences in the Ugandan banking industry in much more detail (Survey 2). This is important because the Ugandan banking industry is integrating into the global economy. From a managerial point of view, the framework helps to find sound improvement recommendations for the Uganda banking industry, especially the local banks. In this respect, managers can immediately start 'upgrading' their organisation. It should be kept in mind however that, because organisations and environments are continually evolving, improvement of ideas and practices need to be adapted continuously. If this is not done, organisations run the risk of meeting the same fate as many organisations characterised as excellent in the past.

Fourth, from the discussions, we may conclude that the survey and findings can serve as a guide to managers as to which action to take to lead their organisations to sustainable superior performance. There is need to assure each person that although he may not be on the management team, everyone can have input and evaluate the recommendations for the improvement of the institution. It is up to the employees to determine how to fulfil each objective. The departments must make general recommendations on what they think

should be done. The leadership, operational departments, and employees determine how it will be done, thus encouraging openness and action orientation.

Fifth, the status of KM practices in FIs was discussed and we concluded that despite its acceptance, most respondents observed that much has still to be accomplished, for FIs to manage knowledge within their institutions in order to improve their performance.

Sixth, we may also conclude that FIs in Uganda face a number of challenges in their operations such as lack of skilled labour, contractual and informational framework, stiff competition, conflicts of interests, and a deteriorating position of Ugandan business performance globally, all of which threaten FIs performance and survival rate.

5.8.2 Answer to Research Question 2

In this chapter we aimed to answer *RQ2: What is the existing level of performance in FIs in Uganda?*

From the Survey 1 the following was established: the FIs in Uganda are a new formation from mergers, acquisitions, and takeovers with about three indigenous banks. These institutions weathered the financial crisis of 2008 and remained operational. By Survey 2 we were able to establish that the FIs in Uganda pass the test of having existed for the last 5-10 years as per our definition. The levels of performance were average, as indicated by the findings ranging between the score of 6.3-7.3 of the HPO framework. Our conclusion is based on the assumption that the score for an HPO should be 8.5 for all the five factors in any organisation. Therefore, we argue that an adapted HPO framework (e.g., the UFI model for HPO is needed to improve the HPO status in Uganda, and other developing economies.

The levels of performance have been affected by challenges and the following eight conclusions are made.

1. Competition has rushed in the regional banking industry, with the number of registered banks being 40 in Kenya, Uganda has 25 banks, Tanzania 32, and South Sudan 8. So far, Uganda which is our case study could do with competitiveness, because according to various competitiveness indices its competitiveness worldwide is very low.
2. The introduction of mobile money services has threatened the FIs operations and reduced further their number of customers.
3. The FIs are using capabilities that arise from knowledge assets that can be easily imitated and replicated.
4. The banking sector emulated global trends in reducing the number of employees, productivity levels need to be improved.

5. There is a growing need for highly skilled people, particularly in specialised areas of the bank e.g., e-banking.
6. The number of FIs that modify to HPOs and make a substantial contribution to economic growth is limited.
7. Most of the FIs are for the non-poor, leaving the poor at the mercy of the informal financial institutions (IFS), i.e., taking the credit only and stimulating member-owned FIs.
8. Uganda has a growing but saturated market. Even though Uganda has witnessed good growth in its banking sector, penetration has continued to be slow, stagnating at about 4 million bank accounts.

All in all, we may answer RQ2 as follows. The level of performance by the FIs in Uganda is on average level; this holds true for the profitability, productivity, and the market share too, assuming the criterion for an HPO level should be, an average of above 8.5. Our conclusion is that Uganda does not have HPO level at the time of research (2011).

5.8.3 Answer to Research Question 3

The answer to RQ3: *What are the existing KM practices in FIs in Uganda?*

The managers recognise KM as a formal project or programme existing in their institutions, and they believe that expanding the use of KM as a strategy grows in practice across different departments of the organisation. Most of the managers acknowledge that there is a degree of co-ordination of KM activity; knowledge can be more easily shared across departmental boundaries. On knowledge responsiveness the FIs have the integrated formal standards and approaches that give every employee access to most organisational knowledge through common interfaces (e.g., a corporate portal). It was concluded that KM is embedded in all the FIs' operations, KM is part-and-parcel of everyday tasks and it blends seamlessly into the background of the organisation's environment.

The value of knowledge results from the way in which it is used in the firm's processes in the production of products and services. By looking at the financial statements of organisations, the revelation is that financial ratios do not determine the value of knowledge and KM practices (cf. Kruger and Johnson, 2009). Therefore, institutions gain advantage from using the capabilities that arise from knowledge assets in ways which are difficult for others to imitate or replicate, as well as the intellectual property associated with the assets.

CHAPTER SIX

Presentation and Analysis of Data

6.0 Presentation and Analysis of Data

In this chapter we provide the answers to RQ4and RQ5 based on the results from Survey 3. The research questions read as follows.

RQ4: What is the relationship between the HPO framework and high performance in FIs in Uganda?

RQ5: What is the relationship between the HPO framework and KM in FIs in Uganda?

We present the data, the setup of the analysis, and the results of the analysis. More precisely, the data was collected from the employees of 26 FIs by distributing questionnaires to them, and by interviewing 16 managers. The analysis is based on the Principal Component Analysis (PCA) and the UFI model variables. The results are essential for our problem statement.

The chapter is organised as follows. Section 6.1 deals with data and data sources. Section 6.2 discusses how to handle the demographic data. Section 6.3 describes six methods of analysing the data. In section 6.4 we apply PCA to the UFI model variables. In section 6.5 we present the descriptive statistics of the PCA variables. The correlation matrix for the study constructs is presented in section 6.6. Section 6.7 deals with the descriptive statistics for the global variables. In section 6.8 we investigate the relationship between the HPO framework and high performance (RQ4). In section 6.9 we investigate the relationship between the HPO framework and KM (RQ5). In section 6.10 we present an overview of the results from the interviews. The chapter summary together with our answers to RQ4 and RQ5 are presented in section 6.11.

6.1 Data and Data Sources

In this section we focus on the operational aspects with respect to the data collection, the data sources, and the data analysis. The general methodology for Survey 3 was discussed in Chapter 4.

The data was collected from employees and managers of 26 FIs in Uganda. A total of 300 questionnaires were administered to employees and 213 usable questionnaires were received from respondents, resulting in a response rate of 71% (details are provided in Chapter 4). Semi-structured interviews were conducted with a sample of sixteen managers. It was assumed that all managers were involved in the strategy formulation of their institutions where the KM practices are determined. Therefore, the managers would be in position to provide part of the information we needed to answer RQ3. The participants were

categorised into two cases. Case 1[15] was composed of twelve managers from commercial banks. So, Case 1 is the Commercial Bank case. Case 2[16] is the Microfinance Deposit-taking Institutions (MDI) case. Similarly, we refer to the FIs either as belonging to the Commercial Banks case (Case 1) or as belonging to the Microfinance Deposit-taking Institutions (Case 2). We do not use the names of the FIs throughout the presentation and discussion of our findings, as the respondents requested us to keep their identities confidential. The twelve commercial banks are coded as: C3, C5, C6, C8, C9, C10, C11, C12, C15, C16, C20, and C21. The MDIs are coded as: MDI21, MDI22, MDI23, and MDI26. We used the answers from the interview questions (given in Appendix E) and the data from the filled questionnaires for obtaining ideas on revealing the relationship between the HPO framework and the performance of FIs in Uganda as well as between the HPO framework and KM.

6.2 Handling Demographic Data

In section 4.8 we discussed the data, the type of data, and how to classify them. Below we focus on the demographic data since they may be considered as data delivering the context of our research, where the answers by the employees and managers are the contents of our research. The context idea also guided the setup of the questionnaire. The preliminary section A of the questionnaire comprised nine different questions: (a) five questions on sample characteristics of the FIs (see subsection 4.6.1), and (b) four questions on demographic characteristics of the respondent (see subsection 4.6.2). A summary of all of the demographic information gathered from the 213 usable questionnaires is presented in the tables and paragraphs to follow. Additional details can be found in Appendix C.

6.2.1 Sample Characteristics of Financial Institutions

In this subsection we present the frequency distributions of the following sample characteristics of the institutions: (1) the institution life-cycle phase, (2) the number of employees, (3) the country of origin, (4) the level of performance, and (5) the listing on the stock exchange. The results are shown in Table 6.1.

15 Henceforth, for brevity, we use Case 1 to refer to the managers from commercial banks who were interviewed.

16 Henceforth, for brevity, we use Case 2 to refer to the managers from MDIs who were interviewed.

Table 6.1 Sample characteristics of FIs.

No	Characteristics	Frequency	Percentage
1	**Institution life-cycle phase**		
	Start-up phase	1	4
	Growth phase	8	31
	Maturity phase	11	42
	Revival phase	4	15
	Declining phase	2	8
	Total	**26**	**100**
2	**Number of employees**		
	Less than 50	4	15
	51 – 100	5	19
	101 – 500	8	31
	501 -1000	6	23
	Above 1000	3	12
	Total	**26**	**100**
3	**Country of origin**		
	Indigenous	7	27
	Foreign owned	19	73
	Total	**26**	**100**
4	**Level of performance**		
	Poor	3	12
	Low	5	19
	Medium	12	46
	High	6	23
	Total	**26**	**100**
5	**Listing on the stock exchange**		
	Listed on the stock exchange	8	31
	Not listed	18	69
	Total	**26**	**100**

***Source**:* Primary data
Note: The results are based on the aggregated data (26 FIs)

(1) Institution life-cycle phase: The institution life-cycle phase is considered to be an important characteristic in the study. The life cycle acts as a control variable in establishing the number of years the FIs have been operating in the environment. The results in Table 6.1 indicate that the majority of the sampled FIs are in the maturity phase (42%). This is followed by the growth phase (31%); we consider the 31% an indication that the growth phase would be the best for FIs to adopt the UFI model for HPO, since in that phase adaptation can be easily facilitated. The FIs which are in the revival phase contribute 15%; in the declining phase it is 8%, and in the start-up phase 4%. The institution life-cycle phase in itself is in line with the selection criterion of an organisation that existed for 5 to 10 and more years for the qualification as an HPO (cf. Waal, 2010). This is in view of the fact that within this time an institution can be expected to be fit for a change or otherwise stated it may be assumed that it has accumulated knowledge resources for performance improvements.

(2) Number of employees: The results reveal a fair distribution of the number of employees in the various FIs. The FIs with fewer than 100 employees are (15+19) 34%, with 101-500 employees are 31%, and with 501-1000 employees are 23%; 12% has above 1000 employees. Generally, the FIs employ a reasonable number of people, thus assisting Uganda in solving the unemployment problem.

(3) Country of origin: Table 6.1 reveals that most of the FIs (73 %) belong to the larger foreign-owned companies and only 27% are indigenous (locally-owned). The findings establish that there are only a small number of indigenous FIs in Uganda, which is a hindrance to the accessibility to financial services in the rural areas. Our findings are consistent with previous studies (see, e.g., Beck and Hesse, 2009). However, Wagner (2011) shows that a heterogeneous banking system is more robust and less vulnerable to systematic risk. The debate on this topic is still going on.

(4) Level of performance: In order to evaluate the UFI model for HPO as robust, we need to establish the level of performance. This was determined by requesting the respondents to rate their organisations. The respondents were requested to provide responses to a statement; “Compared with other financial institutions what is your level of performance?” The choices included; poor, low, medium, and high performance. Table 6.1 reveals that the performance of a larger number of FIs is average or medium (46%). The high-level performance scores 23%, followed by 19% for low performance, and 12% for performing poorly. Despite the current economic crisis, Ugandan banks are relatively strong compared to similar institutions in the region (IMF report, 2012).

(5) Listing on the stock exchange: The respondents were asked whether their FIs are listed on the stock exchange. Table 6.1 shows that FIs listed on the stock exchange account for 31%. Consequently, 69% are not listed on the stock exchange in Uganda. The reason could be that they are listed on the stock exchange in their country of origin.

6.2.2 Demographic Characteristics of the Employees

In this subsection the demographic characteristics of the employees are categorised by: (1) gender, (2) level of education, (3) position of the employee, and (4) function level. The characteristics are presented in Table 6.2.

Table 6.2 Demographic characteristics of employees.

No	Characteristics	Frequency	Percentage
1	**Gender**		
	Male	110	52
	Female	103	48
	Total	**213**	**100**
2	**Level of education**		
	Bachelor's degree	8	5
	Post graduate diploma	138	65
	Master's degree and higher	42	20
	Professional	22	10
	Total	**213**	**100**
3	**Position of the employee**		
	Division Manager	9	5
	B manager	9	5
	Dept. manager	27	13
	Finance officer	135	66
	Controller	2	1
	Project manager	3	1.5
	Others	19	9
	Total	**213**	**100**
4	**Function level**		
	Distribution/logistics	2	1
	Finance/control	64	30
	Human resources	5	3
	ICT	2	2
	Sales/marketing	58	28
	Consultancy	3	2
	R&D	6	3
	Other staff	65	31
	Total	**213**	**100**

***Source*:** Primary data

Note: In the following we use the abbreviations: B manager- business manager; Dept. manager- department manager; Others- other employees; R&D- research and development.

(1) Gender: The gender of the employees is fairly distributed: a total of 110 (52%) are males and 103 (48%) females (who participated in the study).

(2) Level of education: Table 6.2 shows that the level of education of the majority of the respondents is as follows: 65% are postgraduate diploma holders; 20% has attained a Master's degree; 10% of respondents have professional qualifications (ACCA, CIM). This also implies that the respondents have a high level of comprehension of the data-collection instrument. Respondents with only a Bachelor's degree score a sole 5%. The results are in some sense consistent with prior studies in Uganda that have established that the majority of employees in FIs have attained bachelor's degree as their lowest level of education (cf. Ntayi, 2005; Kamukama et al., 2011).

***(3) Position of the employee**:* The positions held by the employees in the FIs are roughly as follows: 66% are banking officers; the categories of manager (i.e., division manager, business and department manager, controller and project manager) are grouped together and they account for 25%. The remaining 9% have other roles in the FIs. In table 6.2 a more fine-grained partitioning is given.

***(4) Function level**:* The employees were asked to indicate the function level at which they are employed. The results in Table 6.2 indicate that 30% of the respondents belong to the finance/ control department; other staff show 31%, while sales and marketing have a reasonably high score of 28%. This confirms the aggressive marketing strategy that the FIs are engaged into attracting customers to their institutions in a competitive environment. The human resource function has 3%, research and development 3%, and consultancy and ICT staff together has 4%.

Given the categories of employees covered by this study, it is evident that the majority of key respondents have the required knowledge to respond to technical questions which address the studied predictor and criterion variables.

6.2.3 Demographic Characteristics of the Managers

In this subsection the demographic characteristics of the managers are presented. We conducted semi-structured interviews with a total of 16 managers. Of these 12(75%) belong to Case 1 and 4 (25%) are employed in Case 2 environments. A total of 9(56%) are male and 7(44%) female. The education levels of the managers indicate that 10(62.5 %) had attained a basic degree and 6(37.5 %) managers had a qualification of a master's degree and above. The level of education suggests that they were sufficiently highly educated to possess managerial competencies necessary for creating value to the organisation. The majority of managers, viz. 11(69%), had a working experience of 2 to 10 years, while 5(31%) had been in bank operations for more than 10 years. This implies that a small majority of the people holding a senior position in the FIs has a relatively limited work experience.

We consider the age of the respondents to be a factor necessary for being knowledgeable. The majority of the managers are between 31-50 years of age accounting for (62.5%), the remainder is in the age range of 20-30 years accounting for (37.5%). The results about age indicate that most managers in the FIs are in their productive age with just a few likely to retire soon. This would imply that ordinarily, such managers would work towards making the FIs better service providers, subject to the KM strategy. The given attributes indicate that the managers are credible as assessed by (1) their level of education, (2) their work experience, and (3) their age.

6.3 Six Methods of Analysing Data

Data analysis is a general term for the application of several specific computational techniques. Below we discuss six of them: (1) Principal Component Analysis, (2) correlation matrix, (3) Bartlett's test of Sphericity, (4) the Kaiser-Meyer-Olkin (KMO) index, (5) communality, and (6) the Varimax. All have the objective of reducing many variables that belong together and have overlapping measurement characteristics to a manageable number. Although it can be done in a number of ways, the most frequently used approach is the Principal Component Analysis (PCA); therefore, in our study, we use the PCA. We define PCA as follows.

Definition 6.1 Principal component analysis

"Principal Component Analysis is a method that transforms a set of variables into a new set of composite variables or principal components that are not correlated with each other. These linear combinations of variables, called factors, account for the variance in the variables as a whole." (Field, 2009)

The Principal Component Analysis (PCA) is used as our extraction method for finding the relevant factors and items in the UFI model. The eigenvalues of the factors are called factor loadings; they are an addition to PCA. For large samples with many variables, only factors with eigenvalues greater than 1 are extracted as they are considered to be significant (cf. Hair et al., 2006). The significance of a factor loading depends on the sample size. The guidelines for identifying significant factor loadings based on the sample size are specified in Hair et al. (2006); they suggest that this should be the starting point for the interpretation of factor loadings.

With reference to Appendix J, the significant factor loadings for a sample size of over 200 should be 0.40 and above. For our study, the number of observations from FIs was 213. Of course, we followed the suggested guidelines regarding a sample size of this nature. Therefore, we consider only those variables that have factor loadings either higher than or equal to 0.40 for further analysis. The 82 items in the questionnaire administered to FI employees are subjected to PCA using SPSS.

To determine the relevant factors we impose the following six conditions on the available data: (1) suitability of the data, (2) testing the sphericity, (3) sampling adequacy, (4) adequate PCA analysis, (5) evaluating the variances, and (6) correcting for rotation. The techniques used for checking whether the conditions are met, are described after each condition listed.

The First condition: Suitability of data

Before performing PCA, the suitability of the data for the PCA should be assessed. To establish whether the data set is suitable for PCA (cf. Pallant, 2011) we used the correlation

matrix. The correlation matrix should show at least some correlations of r = .3 or greater. Below we define the correlation matrix.

Definition 6.2 Correlation matrix

"A correlation matrix is the relationship by which two or more variables occur together, such that systematic changes in one variable accompany systematic changes in the other variables." (Cooper and Schindler, 2008)

For our study, the factor analysis and the factor loadings were investigated based on the relationships in the correlation matrix. The results of the inter-correlations helped us to identify the items that were inter-related, and therefore, suitable for further analysis.

The second condition: Testing for sphericity

Sphericity is the condition which stipulates that the variances of the differences between all combinations of related groups (levels) should be equal. It is an indicator of the strength of the relationship among the variables. To test the sphericity we used the Bartlett's test of sphericity which effectively tests whether the diagonal elements of the variance–covariance matrix are equal (i.e., group variances are the same), and whether the off-diagonal elements are approximately zero. The Bartlett's test has been highly recommended in factor analysis (cf. Field, 2009) since it checks similarity of group variances and it checks that the dependent variables are not correlated. Below we define Bartlett's test of sphericity.

Definition 6.3 Bartlett's test of sphericity

"The Bartlett's Test of sphericity is a test on the assumption of sphericity. The test examines whether a variance–covariance matrix is proportional to an identity matrix. The variance-covariance matrix is a matrix on which the variance is presented on the diagonal, while the covariance resides above or below the diagonal." (Field, 2009)

According to Field (2009), the suitability of factor analysis requires the results of the Bartlett's test to be significant, and should be less than 0.05. The results for all the variables were less than 0.05 and, therefore, considered significant; the group variances were in the same range. Thus, following Field's suggestion we considered our results suitable to continue and check the sampling adequacy.

The third condition: Sampling adequacy

The sampling adequacy is weighting the observations that have a profound effect on the distribution of estimates and on the sample sizes necessary to construct reliable estimates. To determine the factors to include in the PCA, we use the Kaiser-Meyer-Olkin (1970) (KMO) index of the sampling adequacy criterion. KMO measures of sampling adequacy are used

to compare the magnitudes of the observed correlation coefficients in relation to the magnitudes of the partial correlation coefficients. We define KMO below.

Definition 6.4 Kaiser-Meyer-Olkin (KMO)

"The Kaiser-Meyer-Olkin index of sampling adequacy is a measure used to examine the appropriateness of factor analysis. High index values (between 0.5 and 1.0) indicate that the factor analysis is appropriate." (Field, 2009)

For each variable, we used the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser, 1970) which tests whether factor analysis will yield distinct and reliable factors. To determine the factors to be included in PCA the KMO index should be 0.6 or above.

The fourth condition: Adequate PCA analysis

We apply PCA for the initial solution, which may lead to the creation of new components that may have items different from the original items attached to the components. To determine how many components actually fit in the model, we observed the eigenvalues of the components from PCA to determine if they were greater than 1. The "eigenvalue" is the total variance explained by each factor. Any 'factor' that has an eigenvalue of less than one does not have sufficient total variance explained to represent a unique factor, and is therefore disregarded. All the eigenvalues for the three variables (the HPO framework, knowledge management, and high performance) were greater than one. Therefore, we proceeded to evaluate the variance.

The fifth condition: Evaluating the variance

The variance is a limit that describes the theoretical probability distribution of a sample (a not-fully-observed population) of items. The variance measures how far a set of items is spread out. We evaluate how much variance in each of the items is explained by observing their communality values. "Communalities indicate the amount of variance in each variable that is being explained by the factors" (Cooper and Schindler, 2008). Low values of communality (e.g., less than .3) usually indicate that the item does not fit well with the other items in its component (see Pallant, 2011). Below we define communality as follows.

Definition 6.5 Communality

"Communality is the proportion of a common variance present in a variable. Communalities also may be interpreted as the reliability of the component". (Field, 2009)

The total communality is obtained by adding the individual sums of squares for each variable amount of variance that is extracted by the factor solution. The communality for

all items that do not fit well with the other items in all components is removed. The reason is that removing an item with a low communality value tends to increase the total variance explained.

The six condition: Applying rotation

The sixth condition is to conduct factor rotation to determine the most interpretable factor correlation of each variable with each other. We use the Varimax method, a method of rotation where all factors remain uncorrelated with one another and make component loadings more interpretable. We define Varimax as follows (see Definition 6.6).

Definition 6.6 Varimax

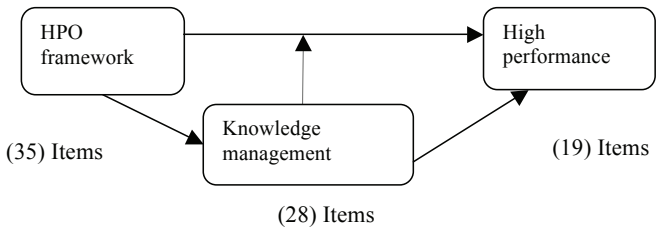
"The Varimax method of rotating factors attempts to maximise the dispersion of loadings within a factor. It tries to load a smaller number of variables highly on each factor resulting in more interpretable clusters of factors." (Field, 2009)

In summary, the new sets of items that are extracted by the factor analysis following the six steps discussed above are guided by the PCA extraction method. Before the PCA, the correlation matrix, Bartlett's test of sphericity, and the KMO were applied. After the PCA the communality method and Varimax are applied, by extracting the most important factors measuring the study variables with factor loadings of not less than 0.4 and eigenvalues greater than 1.

6.4 Application of PCA to UFI model variables

In this section 6.4 we continue with the actual application of PCA. Here, we mention that the 82 items are distributed as follows over the three critical variables of the UFI model: the HPO framework 35 items, KM 28 items, and high performance 19 items (see Figure 6.1).

Figure 6.1 The essential variables of the UFI model.



Below we present the results of the application of PCA to the UFI model variables. In subsection 6.4.1 the PCA for the HPO framework is given. We present the PCA for knowledge

management in 6.4.2, and in 6.4.3 the PCA for high performance. In 6.4 we present the essential variables of the UFI model after PCA.

6.4.1 PCA for the HPO Framework

The application of PCA to 35 items of the HPO framework (see subsections 2.1.5 and 4.6.4) leads to the observation that from the initial component matrix, most of the items load quite strongly (above .4) on eight components. By analysis, the total number of items reduced from 35 items to 22. To increase the total variance explained, Field (2009) suggests that we remove items with low communality values. Therefore, the items which had low communality value of less than 0.4 were removed. Subsequently, the items were rotated again after removing the items that were loading on several components. Finally, we had four components and 16 items remaining as presented in Table 6.3.

Table 6.3 Rotated component matrix for HPO framework.

			Component					
#	Item		1. MQ	2. CIR	3. OAO	4. WQ	5. LTO	Commun
1	The Management of our organisation applies fast decision making.	**MQ4**	**.873**					.847
2	The Management of our organisation applies fast action taking.	**MQ5**	**.819**					.811
3	The Management of our organisation is a role model for organisational members.	**MQ3)**	**.817**					.772
4	The Management of our organisation is trusted by organisational members.	**MQ1**	**.777**					.698
5	The Management of our organisation has integrity.	**MQ2**	**.737**					.827
6	Our organisation has adopted a strategy that clearly sets it apart from other organisations.	**CIR1**		**.803**				.678
7	In our organisation processes are continuously aligned.	**CIR4**		**.799**				.662
8	In our organisation processes are continuously improved.	**CIR2**		**.762**				.702
9	In our organisation processes are continuously simplified.	**CIR3**		**.733**				.660
10	Our organisation continuously innovates its products, processes, and services.	**CIR8**		**.669**				.661
11	Our organisation is performance-driven	**OAO6**			**.809**			.724
12	Organisational members are trained to be resilient and flexible.	**WQ3**				**.829**		.794
13	Our organisation has a diverse and complementary workforce	**WQ4**				**.771**		.734
14	The management of our organisation inspires organisational members to accomplish extraordinary results.	**WQ2**				**.575**		.591
15	Our organisation aims at servicing the customers as best as possible.	**LTO3**					**.875**	.772
16	Our organisation maintains good and long-term relationships with all stakeholders.	**LTO2**					**.793**	.653
Eigenvalue			**6.918**	**1.525**	**1.148**	**1.013**	**.988**	
% of Variance			**43.238**	**9.528**	**7.177**	**6.330**	**6.172**	
Cumulative%			**43.238**	**52.766**	**59.942**	**66.273**	**72.445**	

Source: Primary data

There are five independent components for the HPO framework, namely: (1) management quality, (2) workforce quality, (3) long-term orientation, (4) continuous improvement and renewal, and (5) openness and action orientation. They are discussed below.

Component 1 is named Management Quality (MQ); it has five items: (1) the management of our organisation applies fast decision making, (2) the management of our organisation applies fast action-taking, (3) the management of our organisation is a role model for organisational members, (4) the management of our organisation is trusted by organisational members, and (5) the management of our organisation has integrity. The Cronbach's alpha obtained for management quality is .879.

Component 2 is named Continuous improvement and renewal (CIR); it has five items: (1) our organisation has adopted a strategy that clearly sets it apart from other organisations, (2) in our organisation processes are continuously aligned, (3) in our organisation processes are continuously improved, (4) in our organisation processes are continuously simplified, and (5) our organisation continuously innovates its products, processes, and services. The Cronbach's alpha for continuous improvement and renewal is .793.

Component 3 is named Openness and Action Orientation (OAO); it has one item that could not be rotated: our organisation is performance-driven. It is assumed that every FI is performance-driven. Maybe, the interpretation of the item has not been very clear to the respondent. However, the other items may not have been rotated because of a poor response from employees of FIs arising out of information confidentiality regulations. Whatever the case, since the interpretation of the item was not clear, it was concluded that the whole component should be removed. The Cronbach alpha coefficient obtained for OAO is .561. This is below the 0.6 cut-off that is recommended by Hair et al. (2006) for social science studies like ours. Therefore, we continue our analysis with four components in the construct HPO framework.

Component 4 is named Workforce Quality (WQ); it has three items: (1) the management of our organisation inspires organisational members to accomplish extraordinary results (2) organisational members are trained to be resilient and flexible, and (3) Our organisation has a diverse and complimentary workforce. The Cronbach's alpha for workforce quality is .741.

Component 5 is named Long-Term Orientation (LTO); it has two items: (1) our organisation aims at servicing the customers as best as possible and (2) our organisation maintain good and long-term relationships with all stakeholders. The Cronbach's alpha for long-term orientation is .652.

Our observation is as follows. The Bartlett's test of sphericity gives a statistical significant result of (Sig.00; $p < .01$), supporting the factorability of the correlation matrix. The examination of the PCA results for the HPO framework shows that the KMO index is .869, exceeding the recommended value of .6. So, the KMO measure verifies the sampling adequacy for the analysis of the HPO framework items. Based on the findings of the correlation matrix, the

Barlett's test of sphericity, and the KMO index, we may conclude that our data is suitable for PCA.

All in all, Table 6.3 above shows (1) that five components were extracted and (2) that they explained 72% of the total variance of the HPO framework. Management quality contributed 43% of the variance in the characteristics, followed by continuous improvement and renewal 10%, openness and action orientation 7%, Workforce quality contributing 6%, and long-term orientation 6%. We concluded that the resulting 16 items measure the HPO framework quite strongly concerning the FIs in Uganda.

The PCA results suggest that the applicability of the HPO framework is thus based on the HPO factors of management quality, workforce quality, long-term orientation, and continuous improvement and renewal in FIs in Uganda.

6.4.2 PCA for Knowledge Management

The application of PCA to 28 items of KM (see subsection 4.6.4) leads to the observation that from the initial component matrix, most of the items load quite strongly (above 0.4) on five components. By the analysis, the total number of items reduced from 28 items to 15. Subsequently, the items were rotated again after removing the items that were loading on several components and we had 12 items remaining as presented in Table 6.4. The order of presentation is from high variance to low variance. This holds for the components as well as for the items within the component. So, we start with the highest component KR. Here we

Table 6.4 Rotated component matrix for KM.

#	Item	Item	Component			Communalities
			1 KR	2 KD	3 KA	
1	We are flexible by readily changing products.	KR4	**.794**			.679
2	We are flexible by changing strategies.	KR5	**.767**			.690
3	Our organisation is flexible and opportunistic.	KR7	**.708**			.584
4	We respond to questions on technology.	KR3	**.688**			.560
5	We update our knowledge databases	KR8	**.629**			.653
6	We conduct regular meetings to exchange experiences	KD7		**.786**		.640
7	Knowledgeable staff share their ideas with other staff.	KD6		**.679**		.558
8	We have a well-developed human resource function	KR9		**.607**		.602
9	Knowledge is disseminated on–the–job.	KD1		**.561**		.539
10	We are market focussed by actively obtaining customer information.	KA3			**.769**	.663
11	Our organisation is sensitive to information about changes in the market place.	KA4			**.727**	.640
12	Our organisation has well-developed financial reporting systems.	KA2			**.671**	.548
	Eigenvalue		**5.8**	**1.296**	**1.025**	
	% of Variance		**45**	**10**	**8**	
	Cumulative %		**45**	**55**	**63**	

Source: Primary data

Note: Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalisation Rotation converged in 8 iterations.

remark that we call a concept in the UFI model, a component according to the name within PCA.

There are three independent components for KM namely: (1) knowledge responsiveness, (2) knowledge dissemination, and (3) knowledge acquisition. We discuss them below.

Component 1 is named knowledge responsiveness (KR); it has five items: (1) we are flexible by readily changing products, (2) we are flexible by changing strategies, (3) our organisation is flexible and opportunistic, (4) we respond to questions on technology, and (5) we update our knowledge databases. Cronbach's alpha for this factor is .866.

Component 2 is named knowledge dissemination (KD); it has four items: (1) we conduct regular meetings to exchange experiences, (2) knowledgeable staff share their ideas with other staff, (3) we have a well-developed human resource function; this was an additional loading which we re-examined and declared to be conceptually fit for knowledge dissemination because the HR function in an organisation basically handles all the KM processes (please note, the original indication of KR 9 is maintained), (4) Knowledge is disseminated on the job. The overall Cronbach's alpha obtained for KM questions is .705.

Component 3 is named knowledge acquisition (KA); it has three items: (1) we are market focussed by actively obtaining customer information, (2) our organisation is sensitive to information about changes in the market place, and (3) our organisation has well-developed financial reporting systems. Cronbach's alpha for this component is .647.

Our observations are as follows. The Bartlett's test of sphericity gives a statistical significance of (Sig.00; $p < .01$), supporting the factorability of the correlation matrix. The KMO index is .894, exceeding the recommended value of .6. So, the KMO measure verifies the sampling adequacy for the analysis of KM items. Based on the findings of the correlation matrix, and the Barlett's test of sphericity, in the KMO index, we may conclude that our data was suitable for PCA.

Finally, we remark that the total set of items that could not be rotated anymore (i.e., after eighth iterations) amounts to 11; this means a discrepancy with the 12 items that strongly measure KM. So, we here face an obstacle in relation to our decision to accept item (KR9) as an essential item for the independent component KD.

All in all, the results in Table 6.3 show that most of the items that were believed to be measuring the constructs adequately have indeed been found to be valid as they loaded on corresponding factors (cf. Field, 2009). The results indicate that the proportion of common variance present in KM is above 5. This means that the items are reliable and explain the

variable KM. The explanatory power of each factor is indicated by the eigenvalues in the PCA: KR explained a variance of 45%, KD explains a variance of 10%, and KA explains the list variance of 8%. The three components accounted for about 63% of the total variance in KM. The results suggest that KM in the FIs is based on knowledge responsiveness, knowledge dissemination, and knowledge acquisition. This result is in accordance with Darroch (2005), who states that effective KM could be enhanced by managers facilitating knowledge acquisition, ensuring employees' willingness to disseminate the knowledge, and response to the acquired knowledge.

6.4.3 PCA for High Performance

The application of PCA to 19 items of high performance (see subsection 4.6.4) leads to the observation that from the initial component matrix, most of the items load quite strongly (above .4) on four components. By the analysis, the total number of items reduced from 19 items to 15. Subsequently, the items were rotated again after removing the item that was loading on three components and we had three components and 15 items remaining as presented in Table 6.5.

There are three independent components for high performance: (1) financial high performance, (2) non-financial high performance, and (3) competitive advantage. We discuss them below.

Component 1 is named financial high performance (Fin); it has five items: (1) we have the highest portfolio in the industry, (2) our market share is the highest in the industry, (3) the firm's outreach is so far the best in the industry, (4) we have been registering better returns than any other firm in the industry, and (5) compared to the industry average, we are more profitable. The Cronbach's alpha for financial high performance is .887.
Component 2 is named non-financial high performance (NonFin); it has five items: (1) our frontline consistently executes well on activities that are critical to success, (2) we have high–performing people in the jobs where they can have the most impact, (3) we have superior capabilities and execution of duty, (4) we have a high performance culture, and (5) over the past five years, our organisation met its performance objectives. Items CA5 and CA6 which were an additional loading from the variable competitive advantage were re-examined and declared to be conceptually fit for high performance because it is expected that an HPO achieves most of its set targets and is result oriented (please note that the original indication of CA5 and CA6 is maintained). The Cronbach's alpha for non-financial high performance is .855.

Component 3 is named competitive advantage (CA); it has three items: (1) we can succeed in service delivery amidst resource constraints, (2) we serve our customers in a short time,

and (3) our customers can easily access our services. The Cronbach's alpha obtained for competitive advantage is .780.

Table 6.5 Rotated component matrix for high performance.

#	Item	Item	Component 1 Fin	2 NonFin	3CA	Communalities
1	We have the highest portfolio in the industry.	HP3	**.899**			.831
2	Our market share is the highest in the industry.	HP5	**.876**			.804
3	The firm's outreach is so far the best in the industry.	HP4	**.848**			.786
4	We have been registering better returns than any other firm in the industry.	HP2	**.760**			.673
5	Compared with the industry average, we are more profitable.	HP1	**.727**			.617
6	Our front line consistently execute well on activities that are critical to success.	HP10		**.731**		.612
7	We have high–performing people, in the jobs where they can have the most impact.	HP9		**.688**		.640
8	We have a high performance culture.	HP6		**.673**		.602
9	We achieve most of our set targets	CA5		**.664**		.559
10	Our organisation is result oriented	CA6		**.662**		.532
11	We have superior capabilities and execution of duty.	HP7		**.632**		.584
12	Over the past five years, our organisation met its performance objectives.	HP8		**.577**		.483
13	We can succeed in service delivery amidst resource constraints	CA4			**.807**	.681
14	We serve our customers in a short time	CA3			**.786**	.747
15	Our customers can easily access our services	CA2			**.768**	.660
	Eigenvalue		**6.61**	**2.12**	**1.1**	
	% of Variance		**44**	**14.1**	**7.3**	
	Cumulative %		**44**	**58.1**	**65.4**	

***Source*:** Primary data

Note: Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalisation a. Rotation converged in 5 iterations.

Our observation is as follows. The Bartlett's test of sphericity gives a statistical significant result of (Sig.00; $p < .01$), supporting the factorability of the correlation matrix. The examination of the PCA results for variable high performance shows that, the KMO index is .878, exceeding the recommended value of .6. So, the KMO measure verifies the sampling adequacy for the analysis of high performance items. Based on the findings of the correlation matrix, the Barlett's test of sphericity, and the KMO index, we may conclude that our data is suitable for PCA. Finally, the Varimax extraction component matrix indicates factor loadings of three components of high performance.

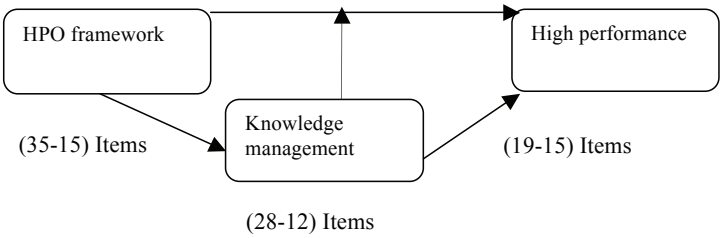
All in all, the financial component accounted for the highest variation, followed by non-financial high performance, and competitive advantage. The three components account for 65% of the variance in high performance. The results suggest that the performance in the FIs is based on the financial and the non-financial ability, and the competitive advantage of these FIs. According to Waal (2011), HPO is "an organisation that achieves financial and non-financial results that are better than those of its peer group over a period of time of at

least five to ten year". In our research context, the FIs correspond more to the non-financial performance than the financial performance and competitive advantage.

6.4.4 The essential variables after PCA

Below we combine the results from the subsections 6.4.1 to 6.4.3. The Bartlett's test for sphericity is significant for all variables (Sig. 000). So, there is a relationship between all the components. For all components discussed, the KMO test indicates values that are above 0.7.This is an indication that they will give adequate results. The values also give an indication of how well the factor model fits the data. In figure 6.2 we present the number of essential variables of the UFI model after PCA.

Figure 6.2 The essential variables of the UFI model after PCA.



We continue our search for the UFI model for HPO by analysing the descriptive data to confirm its suitability for further parametric tests.

6.5 Descriptive Statistics of the PCA Variables

In this section we present the descriptive statistics for the items extracted by the PCA by considering the results from the questionnaire filled in by the employees of the FIs. The observed data is summarised using means and standard deviations[17]. The purpose is to establish whether the statistical means represent the observed data in a fair way so that we can continue our research and test our claims. According to Field (2009), (1) means represent a summary of the data and (2) standard deviations show how well the means represent the data. The results of the descriptive analysis of the study variables in the UFI model for HPO are presented in the subsections 6.5.1 (the HPO framework), 6.5.2 (knowledge management), and 6.5.3 (high performance).

(Note that for the abbreviated items in Tables 6.6, 6.7, and 6.8, the order of the items is based on the value of the pattern coefficients presented in Tables 6.3, 6.4, and 6.5 respectively).

17 Note: Mean is a value in Likert scale; Variance is a measure of how far a set of numbers is spread out; Standard Deviation shows how much variation exists from the mean value.

6.5.1 Descriptive statistics for the HPO framework

Table 6.6 shows that most of the respondents provided a good assessment of the HPO framework (the average mean[18] is 7). All the items show an acceptable level of satisfaction on the HPO framework items.

Table 6.6 Descriptive statistics for the HPO framework.

#	Item Questions (ten-point Likert Scale	Median	Mode	Min	Max	Mean	Std. Dev
1	MQ1	8.00	9.0	2.0	10.0	7.74	2.01
2	MQ2	9.00	9.0	1.0	10.0	8.28	1.72
3	MQ3	8.00	9.0	1.0	10.0	7.73	1.86
4	MQ4	8.00	9.0	1.0	10.0	7.05	2.22
5	MQ5	8.00	9.0	1.0	10.0	7.17	2.14
6	WQ1	9.00	9.0	1.0	10.0	8.48	1.60
7	WQ3	8.00	9.0	2.0	10.0	7.90	1.68
8	WQ4	8.00	9.0	1.0	10.0	7.84	1.89
9	LTO2	9.00	9.0	2.0	10.0	8.44	1.47
10	LTO3	9.00	9.0	1.0	10.0	8.80	1.39
11	CIR1	8.00	9.0	1.0	10.0	7.78	1.97
12	CIR2	8.00	9.0	2.0	10.0	8.00	1.64
13	CIR3	8.00	8.0	2.0	10.0	7.48	1.78
14	CIR4	8.00	9.0	2.0	10.0	7.42	1.68
15	CIR8	8.00	9.0	2.0	10.0	7.98	1.65

Source: Primary data. Valid N (list wise) 213

In the case of variable MQ, item MQ 2 “the management of our organisation has integrity” had the highest mean value of 8.28. The item with the lowest positive assessment by the respondents is item MQ4: “the management of our organisation is trusted by organisational members.” It had a mean value 7.05.

For the component WQ, the item WQ1 “the management of our organisation always holds organisational members responsible for their results” had the highest mean value of 8.48. The item with the lowest positive assessment by the respondents is item WQ4, “the management of our organisation inspires organisational members to accomplish extraordinary results.” It had a mean value of 7.84.

For component LTO, item LTO3 “our organisation aims at servicing the customers as best as possible” has the highest mean value of 8.8, and the lowest has a mean value of 8.44.

18 Note that responses to all item scales in this study were anchored on a 10 point Likert scale, reflecting the degree to which they strongly disagreed (1) or strongly agreed (10) to the Items. Thus, respondents on survey items with a mean of 6.0 or greater are referred to as favourable while those with a mean of less than 4.0 are referred to as unfavourable.

For component CIR, the item CIR2 "In our organisation processes are continuously improved" has the highest mean value of 8.0 and item CIR4 "In our organisation processes are continuously aligned" has the lowest mean value 7.42. In general, employees had a positive perception of the HPO framework factors. We may conclude that the HPO framework contributes to the attainment of high performance.

6.5.2 Descriptive statistics for knowledge management

Table 6.7 shows that knowledge responsiveness, dissemination, and acquisition had mean scores of slightly more than 7.0.

Table 6.7 Descriptive statistics for knowledge management.

#	Item Questions (ten-point Likert Scale	Minimum	Maximum	Median	Mean	Std. Deviation
1	KR4	1.0	10.0	8.0	7.28	2.09
2	KR5	1.0	10.0	8.0	7.40	2.01
3	KR7	1.0	10.0	8.0	7.54	2.03
4	KR3	1.0	10.0	8.0	7.18	2.02
5	KR8	1.0	10.0	8.0	7.84	2.00
6	KD7	1.0	10.0	9.0	8.05	1.91
7	KD6	1.0	10.0	9.0	8.29	1.65
8	KR9	1.0	10.0	9.0	7.94	2.06
9	KD1	1.0	10.0	9.0	8.18	1.52
10	KA3	1.0	10.0	9.0	8.31	1.72
11	KA4	1.0	10.0	9.0	8.27	1.82
12	KA2	1.0	10.0	9.0	8.73	1.47

Source: Primary data. Valid N (list wise) 213

In the case of the component KR, the item KR8, "we update our knowledge databases," had the highest mean value of 7.84. The item that had the lowest positive assessment (7.18) by the respondents is item KR3, "we respond to questions on technology." This could be attributed to the low levels of technology in FIs.

For the component KD, item KD6 "knowledgeable staff share their ideas with other staff" had the highest mean value of 8.29 and the item KR9, "we have a well-developed human resource function" had the lowest mean value of 7.94. A possible explanation could be that most of the FIs do not have a fully-fledged HR function.

Regarding the component KA, the item KA2 "we are market focussed by actively obtaining customer information" had the highest mean value of 8.73 and item KA4 "our organisation is sensitive to information about changes in the market place" had the lowest mean value of 8.27. All the items show an acceptable level of employee satisfaction of the existence of KM in the FI in Uganda.

6.5.3 Descriptive statistics for high performance

Table 6.8 shows a clear level of evaluation of employees' perception of high performance of FIs. The level is just acceptable. All variables of high performance; financial, non-financial, and competitive advantage had mean scores of slightly more than 5.0.

The financial component has as its highest item HP1 "compared with the industry average, we are more profitable" with a mean value of 6.84, while the lowest item was HP5 "our market share is the highest in the industry." It has a mean value of 5.27. The non-financial component has as highest item CA6 "Our organisation is result oriented" with the mean value of 8.70, while the lowest item was HP8 "we have superior capabilities and execution of duty" with the mean value of 6.89.

Table 6.8 Descriptive statistics for high performance.

#	Item	Median	Mode	Minimum	Maximum	Mean	Std. Deviation
1	HP3	6.00	2.0	1.0	10.0	5.37	2.86
2	HP5	6.00	2.0	1.0	10.0	5.27	2.79
3	HP4	6.00	2.0	1.0	10.0	5.66	2.87
4	HP2	6.00	6.0	1.0	10.0	6.04	2.54
5	HP1	8.00	8.0	1.0	10.0	6.84	2.41
6	HP10	8.00	9.0	1.0	10.0	7.70	1.82
7	HP9	8.00	9.0	1.0	10.0	7.59	1.93
8	HP6	8.00	9.0	1.0	10.0	7.40	2.06
9	CA5	9.00	9.0	1.0	10.0	7.92	1.82
10	CA6	9.00	9.0	2.0	10.0	8.70	1.53
11	HP7	8.00	9.0	1.0	10.0	7.30	1.96
12	HP8	7.67	9.0	1.0	10.0	6.89	2.45
13	CA4	8.00	9.0	1.0	10.0	7.70	1.87
14	CA3	9.00	9.0	1.0	10.0	8.25	1.68
15	CA2	8.00	9.0	1.0	10.0	7.88	1.89

***Source*:** Primary data. Valid N (list wise) = 213

The component competitive advantage has as highest item CA3 "We serve our customers in a short time" with the mean value of 8.25, while the lowest item was CA4 "We can succeed in service delivery amidst resource constraints" with the mean value of 7.70.

In other words, the employees' perception about the non-financial component was more positive than their perception about financial component and competitive advantage. The results show that most of the respondents have a good opinion of the variable high performance (the average mean is 7.1 from 15 items). Therefore, we may conclude that the items measured high performance successfully, although the mean values can be improved.

6.6 Correlation Matrix for the Study Constructs

In this section we perform a frequency test in order to find out the means and standard deviations of the study constructs that are shown in the UFI model for HPO (see Chapter

3, Figure 3.6). We also compute correlations between the study constructs using Pearson's correlation coefficient test in order to test for linkages among the constructs. The results are given in Table 6.9. They show an adequate, convergent and discriminant validity of the constructs in our model.

Note:
The reliability coefficient (Cronbach's alpha) for each variable is shown in the last column, printed in **bold**.

Table 6.9 Correlation matrix, means, standard deviations, and alpha for constructs.

#	Variable	MQ	WQ	LTO	CI	KA	KD	KR	Fin	NonF	CA	Mean	Std.D	Alpha
1	MQ	1										7.80	1.54	**.879**
2	WQ	.592**	1									8.08	1.38	**.741**
3	LTO	.457**	.426**	1								8.27	1.38	**.652**
4	CIR	.636**	.508**	.416**	1							7.82	1.34	**.793**
5	KA	.512**	.435**	.314**	.422**	1						8.23	1.36	**.647**
6	KD	.505**	.356**	.312**	.478**	.389**	1					7.71	1.42	**.705**
7	KR	.612**	.527**	.437**	.649**	.565**	.614**	1				7.84	1.47	**.866**
8	Fin	.300**	.272**	.178**	.369**	.181**	.332**	.302**	1			5.68	2.40	**.887**
9	NonFin	.577**	.543**	.358**	.523**	.423**	.418**	.491**	.581**	1		7.64	1.43	**.855**
10	C Adv	.440**	.421**	.300**	.425**	.422**	.249**	.384**	.365**	.677**	1	7.96	1.42	**.780**

**. Correlation is significant at the 0.01 level (2-tailed).
Source: Primary data

In more details, Table 6.9 shows the means, standard deviations, reliability coefficients (Cronbach's alpha), and correlations between ten constructs in UFI model for HPO. These constructs are as follows: (1) management quality; (2) workforce quality; (3) long-term orientation; (4) continuous improvement and renewal; (5) knowledge acquisition; (6) knowledge dissemination; (7) responsiveness to knowledge; (8) financial; (9) non-financial, and (10) competitive advantage. The first four constructs comprise the constructs of the HPO framework in the model that we used to investigate the high performance of the FIs (OAO is left out). The three KM processes are considered as influencing the relationship-development process in the model. The financial, non-financial, and competitive advantage constructs in the model are the outcomes of the relationship-development process of the UFI model for HPO.

In the rows of Table 6.9 we find the ten constructs, together with their corresponding means, standard deviations, and reliability coefficients. We observe that long-term orientation (8.27) has the highest mean value and financial high performance has the lowest mean value (5.68). The columns of Table 6.9 provide the correlations between each of the variables.

The results indicate that the correlation coefficients for management quality are positively related to all variables except financial performance (r = .300); all correlation coefficients

are statistically significant a ($p < .01$). Subsequently, the results show that workforce quality is positively and significantly correlated with all constructs except financial ($r = .178$); all correlation coefficients are statistically significant at ($p < 0.01$). Long-term orientation is positively related with all constructs except for financial performance ($r = .219$). Here too, all correlation coefficients are statistically significant ($p < 0.01$). Then, continuous improvement and renewal is positively related with all constructs except financial performance ($r = .369$). All correlation coefficients are statistically significant ($p < 0.01$).

The results indicate that the correlation coefficients for knowledge acquisition are positively related to management quality, long-term orientation, continuous improvement and renewal, knowledge dissemination, knowledge responsiveness, non-financial performance, and competitive advantage and are statistically significant at ($p < 0.01$); except financial performance ($r = .181$). The results indicate that the correlation coefficients for knowledge dissemination are positively related to all constructs at ($p < 0.01$); except for financial ($r = .332$), and competitive advantage ($r = .249$). We also see that knowledge responsiveness is positively related to all constructs. All correlation coefficients are statistically significant ($p < 0.01$).

The results also indicate that financial performance correlation coefficients are not statistically significant ($p > 0.01$) with all constructs except non-financial and competitive advantage. In contrast, the construct non-financial performance is positively correlated with all constructs. Also, competitive advantage is positively correlated with all constructs except knowledge dissemination ($r = .249$), and long-term orientation ($r = .300$). Here again, all correlation coefficients are statistically significant ($p < 0.01$).

6.7 Descriptive Statistics for the Global Variables

In this section we present the descriptive statistics for the three global variables (the HPO framework, KM, and high performance). The HPOF was the global study variable conceptualised in Figure 3.6 and oprationalised into four constructs namely; MQ, WQ, LTO, and CIR. The global variable HPOF was computed by getting the average of the four constructs of MQ, WQ, LTO, and CIR. KM was the global study variable conceptualised in Figure 3.6 and oprationalised into three constructs namely; KA, KD, and KR. The global variable KM was computed by getting the average of the three constructs of KA, KD, and KR. The HP was the global study variable conceptualised in Figure 3.6 and oprationalised into three constructs namely; Fin, Non-Fin, and competitive advantage. The global variable HP was computed by getting the average of the four constructs of Fin, Non-Fin, and competitive advantage. The section presents for each global variable (1) the computed response from the financial institutions and (2) the strategic business unit. The descriptive analysis results from the data which was aggregated are presented at this level of analysis. To summarise

the observed data, the means and the standard deviations are generated. They are given in Table 6.10.

Table 6.10 Descriptive statistics for the global variables.

Variable	No	Min	Max	Anchor (likert scales)	Mean	Std. Dev
HPO Framework	26	6.66	9.13	1-10	7.81	.587
Knowledge management	26	6.14	9.22	1-10	7.85	.676
High performance	26	5.18	9.00	1-10	7.01	.963

Source: Primary data

Table 6.10 shows that the mean values are greater than 6.0 which demonstrate a positive perception of the respondents towards the variables of our UFI model for HPO under measurement. The main purpose was to establish whether the statistical means are a good fit of the observed data for our model (cf. Saunders et al., 2009). Relatively high mean values are calculated for HPO framework (7.81), knowledge management (7.85), and high performance (7.01). The standard deviations are: (.59), (.68), and (.96) respectively. Table 6.10 reveals that all mean scores of the three variables in question range between 7.01 and 7.85, with the standard deviations in the range of .587 to .963. Because of the small standard deviations compared to the mean values, it is clear that the data points are close to the means and the calculated means adequately represent the observed data. The results show that most of the respondents have a good perception of the global variables in the FIs.

Testing the Claims

Testing the claims (see Chapter 3) derived from the UFI model for HPO, is important for the validation of our research. We will conduct diagnostic tests for parametric assumptions (see Appendix P). We established earlier that the data was suitable for further use to test our claims. In Chapter 3 we made four claims. We prefer to consider below the claims 1 and 2 and we will focus on the claims 3 and 4 in the next chapter.

Table 6.11 Tested claims.

#	CLAIM
Claim 1:	*There is a positive relationship between the HPO framework and high performance in FIs in Uganda.*
Claim 2:	*There is a positive relationship between the HPO framework and KM in FIs in Uganda.*
Claim 3:	*There is a positive relationship between KM and high performance in FIs in Uganda.*
Claim 4:	*There is a significant mediation effect of knowledge management on the relationship between the HPO framework and high performance in FIs in Uganda.*

6.8 The Relationship between the HPO framework and High Performance

In this section, we start the answering of *RQ4.* The definite answer is given in subsection 6.11.4. Below we present the findings on the relationship between the four HPO framework factors (management quality, workforce quality, long term orientation, and continuous improvement and renewal) and high performance. The results are presented in two parts. In subsection 6.8.1 the correlation between the HPO framework and high performance is thoroughly described. In subsection 6.8.2 the influence of the HPO framework on high performance is discussed by using regression tests. All the findings are in line with the UFI model for HPO.

6.8.1 The Correlation between the HPO framework and High Performance

In this subsection, we present the findings on the relationship between the HPO factors and high performance.

Table 6.12 Zero-order correlations between the HPO factors and high performance.

	MQ	WQ	LTO	CIR	Fin	NonFin	CA	HPOF	HP	Mean	Std Dev
MQ	1									7.77	.728
WQ	.793**	1								8.08	.698
LTO	.483*	.315	1							8.19	.628
CIR	.846**	.540**	.485*	1						7.75	.755
Finance	.517**	.497**	.360	.577**	1					5.51	1.582
Non Fin	.717**	.769**	.525**	.655**	.811**	1				7.57	.885
CA	.547**	.616**	.194	.339	.402*	.722**	1			7.94	.827
HPOF	.948**	.805**	.667**	.842**	.547**	.772**	.492*	1	*	7.81	.587
HighP	**.659****	**.684****	**.413***	**.614****	**.911****	**.957****	**.727****	**.677****	**1**	7.01	.963

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).
Source: Primary data

A: Correlation between Management quality and High performance

Table 6.12 indicates that there is a statistically significant strong and positive relationship between the management quality and high performance ($r = .659^{**}$, $p < 0.01$). This implies that better quality of management in FIs associated with high performance is increased. The results further indicate that the relationship is strong.

B: Correlation between Workforce quality and High performance

There is a statistically significant strong and positive relationship between the management quality and high performance ($r = .684^{**}$, $p < 0.01$). This implies that better quality of workforce in FIs associated with high performance is increased. The results further indicate that the relationship is strong.

C: Correlation between Long term orientation and High performance

There is a statistically significant strong and positive relationship between long-term orientation and high performance ($r = .413^*$, $p < 0.01$). This implies that long term orientation of the FIs associated with high performance is increased. The results further indicate that the relationship is strong.

D: Correlation between Continuous improvement and renewal and High performance

There is a statistically significant strong and positive relationship between continuous improvement and renewal and high performance ($r = .614^{**}$, $p < 0.01$). This implies that continuous improvement and renewal of FIs associated with high performance is increased. The results further indicate that the relationship is strong.

Correlation between the HPO framework and High performance

The composite of the HPO framework shows that in Table 6.10 there is a positive and significant relationships between the HPO framework and high performance ($r = .677^{**}$, $p < 0.01$). This implies that the effective implementation of the HPO framework is highly associated with high performance in FIs. The HPO research showed that there is a direct and positive relationship between the four HPO factors and high performance: the higher the scores on the HPO factors (HPO scores), the better the results of the organisation, and the lower the HPO scores the lower the performance.

A strong significant relationship between the HPO framework and high performance implies that a better implementation of the HPO framework is associated with an improved performance in Uganda's FIs. So, the HPO framework is positively related to high performance in FIs. The results further indicate that the relationship is strong. Thus, Claim 1 which states that there is a positive relationship between the HPO framework and high performance receives strong support.

6.8.2 Regression between the HPO framework and High Performance

Regression results indicate that the HPO framework significantly predicts high performance by 46% in the FIs highest level of statistical significance (Sig. $F < 0.01$), as can be seen from Table 6.13.

Table 6.13 The effect of the HPO framework on high performance.

Constructs of HPO framework	B	t-value	Sig.	R^2
Management Quality	-.269	-.658	.518	
Workforce Quality	.614	2.397	.026	
Long-Term Orientation	.133	.804	.430	
Continuous improvement and renewal	.445	1.508	.146	.571
Global Variable HPO framework	.677**	4.506	.000	.458

***Source*:** Primary data*p < 0.05; ** p < 0.01

Regression results further indicate that the HPO factors workforce quality (B = 0.614; Sig. = 0.01) and continuous improvement and renewal (B = .445; Sig. < 0.01) significantly predict high performance in FIs in Uganda. The management quality (B = -.269; Sig. > 0.05), and long-term commitment (B =.133; Sig. > 0.05) are no significant predictors of high performance. The composite of the HPO framework significantly predicts high performance 57% (R^2 = .571; Sig. < 0.01) in the FIs. The HPO framework has a significant influence on high performance.

6.9 The HPO Framework and Knowledge Management in FIs

In this subsection, we start answering *RQ5.* The definite answer is given in subsection 6.11.5. Below we present the findings on the relationship between the HPO framework and KM. The results are presented in two parts: (6.9.1) describes the correlation between the HPO framework and KM and (6.9.2) the regression between the HPO framework and KM. Regression analyses make a stronger claim than correlation analysis. They attempt to demonstrate the degree to which one or more variables potentially promote a positive or negative change in another variable (cf. Garson, 2010).

6.9.1 Correlation between the HPO framework and KM

The results indicate that there is a statistically significant strong and positive relationship between the HPO framework factor MQ and KM (r = .797, p < 0.01), and the HPO factor WQ (r = .781), and a positive but significant relationship between the HPO framework factor LTO and KM (r = .670), and the HPO factor CIR and KM (r =.734).

Table 6.14 Zero-order correlations between the HPO factors and KM.

Construct	MQ	WQ	LTO	CIR	KM	Mean	Std. Dev
Management Quality	1					7.58	0.79
Workforce Quality	.675**	1				8.05	0.65
Long-Term Orientation	.557**	.457*	1			8.58	0.56
Continuous Improvement & Renewal	.777**	.481*	.554**	1		7.66	0.73
Knowledge Management	**.797****	**.781****	**.670****	**.734****	1	7.85	0.68

*. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).
Source: Primary data

The results indicate that there is a statistically significant strong and positive relationship between the HPO framework and KM processes (r = .877, p < 0.01). The HPO research showed that there is a direct and positive relationship between the four HPO factors and KM: the higher the scores on the HPO factors (HPO scores), the better the results of KM, and the lower the HPO scores the lower the KM. This implies that better KM practices in FIs are associated with increased HPO factors. The HPO framework applicability is enhanced by the KM processes. The results further indicate that the relationship is quite strong. Thus, Claim 3 which states that there is a positive relationship between the HPO framework and KM receives quite strong support

6.9.2 Regression between the HPO framework and KM

The regression results of the global variable the HPO framework on KM (see Table 6.15) indicate that the HPO framework significantly predicts KM in the FIs. The prediction is statistically significant (Sig. F < 0.01). The HPO framework explains a variance of 77% with (B = 0.877; Sig. < 0.01) of KM.

Table 6.15 The effect of the HPO framework on KM.

Constructs of HPOF	Beta	t-value	Sig.	R^2
MQ	.171	.975	.341	
WQ	.433	3.422	.003	
LTO	.230	1.995	.059	
CIR	.266	1.760	.093	.823
Global Variable				
KM	.877**	8.930	.000	.769

***Source*:** Primary data

A closer examination of the regression results of the constructs of the global variable HPO framework on KM shows that WQ explains the greatest variation in the KM, followed by LTO. The HPO factor MQ has the least explanatory power. All three constructs under the HPO framework significantly explain 82% of the variance in the KM. However, workforce quality explained the highest variance (Beta = 0.433; Sig. < 0.01) followed by LTO with (Beta = 0.230; Sig. > 0.05) and then CIR with (Beta = 0.266; Sig. > 0.05), and MQ (Beta =.171; Sig. > 0.05). The total explanation was R^2 = .823 (82%); Sig. < .01. This implies that the HPO framework is closely associated with knowledge management.

6.9.3 Summary of the findings

A summary of the findings on the relationships and the influence of the variables are presented in Table 6.15.

Table 6.16 Correlations and regression results for the claims tested.

Claim	Correlation Coefficient	Regression coefficient-Beta	Claim supported?
Claim 1: There is a positive relationship between the HPO framework and high performance.	r =.677, p< .01	β =.677**	Strong
Claim 2: There is a positive relationship between the HPO framework and knowledge management.	r =.877, p <. 01	β =.769**	Very strong

In the following section we provide an overview of the findings from the interviews held with the managers of the FIs.

6.10 The Interviews

In this section, the relationship between knowledge management and high performance in FIs in Uganda is investigated by qualitative research, in particular interviews. We interviewed sixteen managers. The results revealed that the relationship between KM and high performance is positive and rather strong. Below we present our experience together with an excerpt of their responses.

More precisely, we give a summary of the responses on the questions we asked. In Appendices D, and E we give the detailed responses. We present our results in two parts as follows. In subsection 6.10.1 we discuss the KM strategies employed by the FIs. They can be seen as the contribution to the relationship between the HPO framework and performance. Then in 6.10.2 we present the contribution of KM to performance.

6.10.1 The KM Strategies Employed by the FIs

In this subsection we present the results from the interviews with the managers on KM. We start with a brief description of a KM strategy. The focus of a KM strategy is often on competitive orientations. An adequate KM strategy is closely aligned with the organisation's overall strategy and objectives. Below we define a knowledge management strategy.

Definition 6.7 Knowledge management strategy

A knowledge management strategy is a plan that describes how an organisation will manage its knowledge better than so far for the benefit of that organisation and its stakeholders. (cf. Skyme, 2002)

The KM strategies identified from respondents could be categorised by the identified variables of our UFI model for HPO: (A) the knowledge acquisition, (B) the knowledge dissemination, (C) knowledge responsiveness and (D) performance improvement.

A: Knowledge acquisition strategy

The two main themes emerged from the interviews in the category of the knowledge acquisition strategies: (A1) Recruitment and (A2) Training and development. We discuss them both below.

A1. Recruitment

It was established that all the FI managers consider recruitment as the main strategy that they use to acquire knowledge. We illustrate this by interview excerpts from two managers. The question reads: what is your KM strategy for knowledge acquisition? For readability we have applied textual adaptations in the first paragraph. In sequel (which holds for all excerpts following) we have left the text untouched since we believe that the language puzzles are easily solvable.

A typical Case 1 response is:

"*The human resource identifies people from other banks. We get the employees from the banks in Uganda. Then we select people who have experience and separate them from people who have just finished school. We understand that people who have experience come with what you want."*
"…We need to do more of internal recruiting and recognising people who have been inside rather than recruiting from outside," (textual adaptations applied).

"We assess each staff's competence and profile and we place them in positions where their skills and competences can be best utilised. People are developed into higher positions based on the experience, skills and the knowledge they have acquired from time to time. We are seeking for passion and placing people where they are qualified, we don't just give a person a job because he has an MBA but what he can do with that MBA."

A typical Case 2 response is:

"One way is maybe through recruitment because I think the staffs are the big knowledge resource and we need to recruit staffs who are knowledgeable, to a acquire knowledge."
"*The available knowledgeable employees are sometimes given positions that are not in line with their professions.*"

"It all starts from recruitment. At the entry level we run external adverts and also at managerial level but for middle management position, we use staffs that have been developed through the ranks. The recruited staffs are taken into a comprehensive training programme and then they are attached to mentors for a period of time. Then we also have what we call the international forum of finance being an international organisation and here there is an exchange of ideas between the different affiliates. We acquire knowledge

through seminars, workshops, and we also maintain a training library which is our source of stored knowledge.

"The way I understand is developing people's capabilities regardless of their background may be from the academic background for example. ……we recruit people from all professions, different academic disciplines, we get on people who have done agriculture in credit, some do sales others have done science course, others arts and all these work in all departments. Regardless of what one has specialised in, we do rotate them so that they can get to know the general operations within the institution. For example, one would have come with a degree in agriculture and he is employed in credit but after some time, he can be taken to the back office and he becomes an accountant".

The above quotations seem to highlight the fact that there exists selection processes for competent employees in FIs as a strategy to recruit knowledgeable staff. On further analysis of the recruitment initiative, it was noted that FIs recruit employees who may not have the skills and experience of working in the industry. A possible explanation could be that there is shortage of skilled and experienced employees. However, a reasonable number of the respondents admitted that they need to do more of internal recruiting by recognising employees who have been inside the institution rather than recruiting from outside, to address the KM strategy. Most of the respondents were of the view that the recruitment of staff was a key initiative of KM strategy in their quest for HPO; the people should be placed in positions for which they are qualified and in which they are good at.

A2. Training and development

All the managers who were interviewed said that they have focussed on training and developing their employees. This observation is illustrated by comments from the managers. Below we show two answers to the question: Next to recruitment how do you acquire knowledge to improve performance in FIs?

A typical Case 1 answer is:

"*Normally, the human resource department organises seminars based on the human resources personal filed where they are able to determine the academic background i.e., what you studied, the experience and so they will invite staff for seminars depending on the topics that they are covering. The invited individuals are informed in advance so that they can come up with proposals further training and development. It can be a short period and if it is a sales process for example, they are taken through the sales process*."

"..Sometimes in banks we do routine work and when you are trained, you can perform better through training and mentorship where you may acquire new knowledge on work methods exposed to you through succession planning. "The transfer of knowledge takes place in the

bank from time to time for staff to appreciate the new product and to avail information to their clients."

A typical Case 2 answer is:

"We believe in giving opportunities and advantages to our employees, on the basis of their ability. We believe in rewarding achievement, and in providing first-class career opportunities for all."

"*..Ah, first of all you acquire knowledge which is then transformed into products so that something is not only in your head but in a work environment. You may be the first person to do it in the bank because you have the knowledge and then you go to the real applicability of this knowledge."*

"It may mean knowing each person's talent, how best he can perform at the job, and how best you can help him to improve on knowledge. For example people in marketing need to know all the products offered so that they are able to give relevant information to clients. It may also mean analysing gaps in the human resource and working to fill them."

The above quotations seem to show that most of the FIs have programmes that invest a great deal in training so that they can empower all their staff with skills needed to perform their work both locally and abroad. Since there are different stakeholders, they all have to be involved as part of the performance improvement policy. The training has an impact, with more employees engaging in active strategies, as well as provision of feedback listed as positive approaches to KM. However, the FIs need to train (and retrain) front-line employees on effective performance management practices.

In addition, HPOs are more apt to train supervisors on the following: giving and receiving feedback, conducting performance appraisal meetings, addressing employee performance issues, and setting the goals the employees will be measured against. This implies that the training and development received at the job enables the managers to deal with a variety of workforces to encourage them to improve on their institutions' performance. This creates commitment to high-performance at the industrial level, as well as engagement. Moreover, it promotes motivation in the employees via the more effective managers. The findings from this study confirm the assertion made in the literature stating that training and development encourage the KM activities (cf. Kang et al., 2008).

Training and development are important HR practices not only for KM but also for the improvement of individual and organisational performances. In Case 1 and 2, the training and development that employees receive for practicing KM are mainly for knowledge acquisition. Thus, training such as workshops, seminars and on-job-training are available

to employees in Cases 1 and 2. In agreement with Huselid (1995), and Pastor et al. (2010), training and development have a positive effect on KM activities in institutions. As such, the training and development initiatives strategy should be closely aligned to the KM efforts of an organisation in order for the training to be effective.

Further, findings reveal statements recorded from the respondents during the interviews that assisted in identifying other means of knowledge acquisition activities in FIs. The following two answers (both Case 2) are relevant.

A typical Case 2 answer is:

"We acquire knowledge through getting information from competitors. We use our marketing staff especially through formal and informal channels to find out the way others are pricing, the way they are charging their products; we also make use of our customers. We do window shopping in the banking halls. We can even open an account in another institution to find out the charges, we find out the customer service and the things they do to help them grow."

"However, we need to interact with more people doing the same business to acquire more knowledge even at the international level and try out the innovations."

Other measures include robust and expanded market research outreaches, and other global exposures, as may be seen from the following.

A typical Case 2 answer reads:

"*We normally conduct customer workshops where we try to get feedback from customers on how they feel about our services. We have a marketing team who go and get us some market intelligence to help and study how other players in the industry are serving the customers. This helps us to adjust accordingly."*

The statements suggest that the FIs also focus on market research activities and provide a framework for capturing knowledge generated outside the FIs. FIs must build effective networks, both internally and externally to integrate knowledge into the organisations' operations. The managers suggest that the FIs need to accept the changing workforce and customer orientation, and plan for training in terms of how the processes could be re-engineered to HPO.

B: Knowledge dissemination

The knowledge dissemination strategies that resulted from our interviews were categorised in two themes; (B1) the use of information technology (IT) and (B2) the mentorship arrangements. Below we discuss both of the responses.

B1. Information technology

The findings indicate that the knowledge dissemination strategy as perceived by the managers is straight forward. All the FIs use information technology to disseminate knowledge as illustrated in the answers below.

A typical Case 1answer is:

"*We have different ways in use to manage knowledge resources and have it passed on to all our staff. The moment you join the bank, you are connected to the intranet whereby each one of us can share direct with colleagues on e- mail; the individuals who join (the new ones), are taken through induction where they are given a general scope about the bank activities and specific information and knowledge about their jobs and departments where they are based*."

"*There is also the day to day sharing of knowledge where in each branch, the branch team holds meetings and in these meetings, people make presentations to clarify on certain issues and give information to others.""Normally we have written information like reports, brochures, memos, and manuals which are sent out to employees and customers.*" "*We have principles and guidelines that manage the bank and because of that we have a book that cascade in order to keep people posted and know what to do."*

"Again it varies from department to department but generally there are policies that guide you on how to access knowledge and whom you share it with. Because we are a bank and most of our operations have secrets that we may not want to pass on to a competitor, you are obliged to reserve some things that may be necessary to keep you above the competitor. Most of them are written in the policies."

"*Today, IT innovations have influenced our ways of living in many fields including business industry and we all benefit from the new technologies". The evolution of technology has led to innovation of varied banking products including the VISA, MasterCard, online Banking, Mobile Money and E-commerce; thus facilitating modern banking. In Uganda, banks are embracing information technology to offer innovative financial products such as mobile money, as well as improve the efficiency of their operations. Ours is a bank that thrives on technology and innovation."*

A typical Case 2 answer is:

"We have got software to set targets for each and every individual in the bank depending on the overall objective of the bank. We keep on monitoring and reviewing by looking at core values of the bank for there is constant communication and reviews to help people become better."

"We have communication which is two way, i.e., from top to bottom and from bottom to top. We have meetings, we have trainings and we have an intranet which is a very good exchange of information for employees."

"*… Share knowledge through networking, with many other players, we are members of Women's World banking, the MDI forum, and we are ex-official members with Uganda institute of Bankers." Our CEOs meet and share knowledge of what is going on in the industry. Internally we have a newsletter where we communicate. We disseminate knowledge by conducting training for the SMEs that are basically the base of our clients."*

The FIs are using rules, procedures, and guidelines and the respondents believe that everyone who follows them can be a good employee as long as he/she is well guided and adequately trained. The FIs tap into the experience of their employees for whom they are competing in the market. This includes hiring experienced people from other banks, as highlighted by respondents.

From the foregoing discussion the managers indicated that the technology used by their respective institutions has revolutionised the way knowledge is shared and codified.

Other areas of disseminating knowledge externally include the FIs' network. The sharing of knowledge with the community has improved the FIs' operations in the environment. The large FIs, i.e., those that have 1000 employees and above are usually embarked in Uganda by staff from abroad. They have always a need to disseminate knowledge broadly and effectively. The findings indicate that the FIs have basic mechanisms of knowledge dissemination in most situations. For example, knowledge may be acquired through verbal inputs by Skype or telephone conversation and end up with formal comments, which may be disseminated in writing.

Based on the discussion above we may conclude that internal coordination and dissemination of knowledge is vibrant in the FIs. It emerged from the discussion that efforts to acquire knowledge that can build a strong knowledge base have not yielded high levels of performance which is an indication to FIs that they have to do more to improve the level of high performance. The respondents proposed a KM strategy that will ensure a knowledge-sharing culture to bring to the FIs. There should be a mechanism for recognising

the diversity of knowledge activities in the FIs. The HR respondents proposed a strategy that offers incentives and recognition for staff that contribute to the knowledge and share this knowledge with people within the FIs and beyond. The HR strategy proposes the introduction of knowledge activities in staff and performance assessments.

However, all the managers interviewed indicated a laxity in openness among FIs. One respondent commented that they are limited in disseminating information freely due to the Financial Institutions Act (2004) which emphasises confidentiality of information. The current environment in the FIs in Uganda according to the perceptions of the respondents is surrounded by reservation, intimidation, and a policy that prohibits them from sharing the knowledge freely.

B2. Mentorship arrangements

All the FI managers who were interviewed said that they use mentoring to disseminate knowledge to employees to improve customer service. The following outcomes from the managers were extracted on the question: How is the mentorship arranged in your work?

A typical Case 1 answer is:

"We have different senior managers who actually do the mentoring of younger officers who are recruited to the various positions in the bank, to develop their skills." I will use my personal example; when I have new staff, I take them through the things that I do and then I ensure that when e.g., I need them to do some presentations, I take them through the process and tell them what kind of questions to expect and by so doing, I am passing on my experience and helping them to build capacity, confidence, and be able to deliver in a way that is expected of them."

A typical Case 2 answer is:

"Yeah, if someone is recruited, normally he has to be attached to a mentor. It is the practice that is ongoing and we assign a mentor on every job and the mentor has to give a report monthly on the progress of the new employee." "*We give people time to absorb knowledge and that is given by mentors in business, as they explain how we have been operating."*

"I think it is trying as much as possible to be on top of everyone and that means trying to be best in whatever they do. We tell our staffs that attribute determines their attitude. If you have the right attitude, go for it and you will get it. With the right strategies, we think that our staffs can be utilised as the major resources at our disposal. "

From the foregoing discussion on the state of mentoring in FIs, we see that mentoring requires a particular culture that is conducive. Africans are very informal people, for

example, mentoring takes place mostly in social gathering which are limited in number in FIs environments. Otherwise mentoring on-the-job is restricted because of insecurity. That is, the mentor is insecure of the mentee, who may take his job. However, the implication of this finding is that in agreement with Agumba and Fester (2010), mentoring contributes to higher career satisfaction, morale, processional identity, self-confidence, and professional development in organisations which are essential for effective KM.

C: Knowledge responsiveness

The knowledge responsiveness strategies as perceived by the managers were identified and categorised into two themes as follows: (C1) Performance appraisal, (C2) Employee retention. We discuss both of them below.

C1. Performance appraisal

One of the main themes that emerged under knowledge responsiveness was the performance appraisal exercise. The following were the answers on the question: How does the FI handle performance appraisals?

A typical Case 1 answer is:

"We have performance appraisals and these help us identify areas of strengths, and areas of concern where there is need for training of staff." "In my opinion, I would say the bank is utilising the knowledge in each department, considering the work load employees have at their desks."

"Yes, we have periodic reviews of our performance. We have appraisals on yearly basis but for example me I appraise my staffs on a daily basis. I can say this one you have done well, this one you need improvement and so on. At the end of the day, you find that people progress in their performance and deliver the kind of results that I want."

"Particularly, staff generally do not have clarity on the formally approved organisational structures and reporting lines; in some instances the reporting relationship at subsidiary and group level is unclear and this has resulted in ambiguity in roles and reporting relationships and may also result in inefficiency in operating models and spans of control. This has hampered manpower planning, performance management, and succession planning initiatives."

A typical Case 2 answer is:

"At least on quarterly basis they are subjected to a number of appraisals after which we do evaluate both their performance to see whether there is any value added on their output? Whether we are getting a return on investment from the training we have had."

"A part from the office assistants who are on contract basis the rest of the staff are free to do any work and to get promotion anywhere depending on how their immediate supervisors view or see their capabilities. This is actually done by the branch manager. We do appraisals and make recommendations to management. If for some time let say 6 months or a year the employee is found to be good at mobilising customers, he can be promoted for example to head loans and he creates for us more customers."

"*We have performance appraisals and this one helps us identify areas of strengths, areas of concern where there is need for training of staff. During that period, we are able to understand whether the person is doing right or not and we can assist in filling the gap through training*."

From the interviews it can be inferred that the employees' performance in FIs is regularly assessed in performance appraisal meetings with the management. The above views suggest that the managers are trying to get involved in their organisations' performance improvement process through: (1) staff performance appraisals which results into promotions; (2) increasing recruitment, especially at the branch levels; (3) training and development of the employees; and (4) interaction with more people in the same industry.

The HPOs create an environment in which regular, ongoing performance management discussions are the norm. A common pitfall of performance management is that it is often episodic rather than ongoing (see Waal, 2012). HPOs replace annual or semi-annual formal performance reviews with regular (monthly or quarterly) informal discussions between frontline managers and their direct reports. This establishes better communication and helps both to maintain consistent focus on what needs to be done and to gauge progress. Therefore, the implications of our findings indicate that there is a relationship between the performance appraisal and improved performance in the FIs in Uganda.

C2. Employee retention

From the interviews we established that the initiative for employee retention in FIs was recognised as important for the Cases 1 and 2. The following are illustrations to the identified activities in the FIs. The question reads: How does the FI handle the issue of employee retention?

A typical Case 1 answer is:

"*The biggest resource we have is the human knowledge which is in the minds of employees and the organisation has no big control over it. They come and go with it, what is important is placing it right and using it right so that we can continuously develop and try to retain it.*"

A typical Case 2 answer is:

"*We do not have a deliberate retention programme that aims at keeping the experienced staff within the organisation.*" "*There is need to consolidate and streamline the succession, planning and the executive programmes.*" *"We also try to retain the best people we have by having a career path plan which they can develop so as to continue to use their skills.*"

"At a time when there are so many changes taking place in the industry experienced employees are taking on new roles or leave the institutions. As a result the remaining employees most times lack sufficient knowledge about the way things work."

From the interview extracts it was established that in FIs', knowledge acquisition involves the recruitment process since the highly qualified and specialised human resources are quite rare. The implications are that the FIs are striving to attract experienced employees to their institutions. The findings indicate that FIs are having a problem with the retention of the recruited staff. The findings further suggest that knowledge and lessons from FIs' operations are not captured, streamlined, and shared in the sector for benchmarking. The managers proposed an HR strategy that encourages recognition and reward, especially for staff members with outstanding knowledge activities, such as working papers on operational lessons, concepts and new or innovative approaches. Although rewards for innovative operation, and reports, that document lessons or provide valuable data, are already in practice in FIs. Coordination level, leveraging, and streamlining of external knowledge remains weak. As the FIs aim at retaining their HR by promotions and retention programmes, there is a need to finance the expertise areas so as to obtain good performance out of them.

6.10.2 The Contribution of KM to the Performance

The findings obtained from the interviews suggest that KM has contributed to performance in basically three aspects of their operations: (A) Financial performance, (B) Non-financial performance, and (C) Competitive advantage. We discuss the three topics below.

A: Financial performance

The manager's perception of KM as a process that improves the performance of the FI in terms of profitability and productivity is to be seen in the following answers. The question reads: how is your FI performing with respect to profitability and productivity?

A typical Case 1 answer is:

"*The financial performance is not bad because we have been solvent.*" *"…and may be the other thing is about profitability; we have been able to register profits every financial year for the last 3 years which is an indicator of good performance."*

"We are number one in terms of quality and in portfolio volumes. The rate at which we are growing is very high within the industry." We are making profits and we are on top because we have a good clientele base, diversity of products, and we have a wider coverage (the branches)."

"...Yes knowledge has contributed to our performance in term of customer awareness and product development. We have recently launched the premium product which caters for the top most guys and other several products that have been developed to meet customer needs."

A typical Case 2 answer is:

"We also have the portfolio quality which continues to grow every month. We have the industrial average below 5% which is some good achievement because even the industry people tend to think that 3% is not achievable but we have been able to do it."

"I would say yes because this can be seen from the way we are improving like the number if customers we register on regular basis. From three years back, we have been registering growth of over 40% in most of the parameters. So this means that customers are beginning to believe in us and knowledge management contributes a lot."

"*The previous year, we made a profit of 1.3 billion Uganda shillings and we compared very well to other financial institutions that are already Banks. This was amidst all the problems in the whole world that included the global crisis."*

"The financial performance has been good and that is why we have been admitted to become a bank and it is because of the financial credibility."

The knowledge acquired globally has assisted some of the FIs to diversify the products which have in turn improved their services. Through KM the respondents suggested that they have been able to improve on their profitability and productivity. They have high turnover in terms of their portfolio; their collections and distribution of loans is high; the balance of payments after taxation by government and other expenses is also high. Therefore, they perceived themselves as high performing in the sector.

Most of the respondents interviewed said that their emphasis was on improving their business performance. Though the respondents say more about future earnings capabilities, we are convinced from our findings that measures of KM practices will increasingly be at the forefront in discussion of the dynamism value of knowledge, within and outside of the FIs. The association of KM and high performance is in line with Robinson (2006), Reychaw and Weisberg (2009), and Mafabi et al. (2012) who state that the knowledge resource can

be used to create and implement new organisational forms (structures, processes, and competencies) which should be used for high strategic value.

B: Non–Financial performance

The contribution of KM as perceived by the managers towards their non-financial performance include: (B1) Market share, (B2) Employee satisfaction, and (B3) Customer satisfaction. We discuss the topics below.

B1. Market share

The respondents considered outreach in the form of branches opened in the country as an indicator of high performance. The client base of the FIs in the category of HPO is quite big and so is their market share in terms of branches. Such respondents regarded themselves as high performers in comparison to other FIs operating in the local (Uganda) and regional (East Africa) environment. The following responses are illustrations. The question reads: how does the FI approach the market share?

A typical Case 1 answer is:

"The market itself is very good because within the twenty five years we have been in operation, we have been able to open up 24 branches, with new ones yet to be opened."

"We have also increased our customer base and you can easily realise it from the market as people now know the bank. We have put up branches in areas no one ever expected. We have a branch in Kikubo, in Ndeba etc. We tried at least to go down and increase output."

"The bank generally is making effort to achieve the financial objectives which are: e.g., growing deposits and lending to more customer outside Kampala. Our goal really was to be a bank of the unbanked. That has changed and our goal to serve the corporate. We also realise that it is very difficult to do business in Uganda because rent and other expenses are high. We managed to put up 10 branches in Uganda in one year and its one record. We were almost building a branch from scratch per month spending about a billion of each of those almost per month. Each of those branches countrywide has an ATM. All this is money and in terms of this it's not only about expansion but looking for a region on investment and the need to serve people."

A typical Case 2 answer is:

"At least we have 70% market share but if we are to be given one year, we shall be somewhere, since we are penetrating the market through opening up various branches."

From the findings, we see that the implications of the quotations above are as follows. Without a holistic perspective which captures all the key elements and dimensions, the KM initiatives will create marginal gains at best and failure at worst. The findings further indicate that FIs which have developed KM environments have gone beyond the stage of discussing business performance solely in financial terms to non-financial factors. Low-performing institutions in the sample were far more concerned with the short-term financial performance, and had marked difficulties in addressing KM issues. However, the FIs which have a clearly defined business idea or direction and have been in operation for the last ten years were more convinced that a KM strategy was a vital concern to their activity than others.

B2. Employee satisfaction

The manager's perception and his assessment of the employee's satisfaction with a KM environment and its contribution to performance are presented in the following answers. The question reads: which KM activities are conducted in your organisation?

A typical Case 1 answer is:

"*There is need to address human resource issues, concerns, and attitude which are very dynamic and different depending on the individual. HR issues are not easy some times, we need to understand different personalities and design the appropriate ways to address them so that we avoid the issues of staff turnover." For example we are trying to consolidate a product like salary loans payment because staff payment has been low compared to other banks."*

"*Without a shared understanding among the team members, very few knowledge acquisition activities are conducted in our organisation."*

A typical Case 2 answer is:

"I think they should find more time for training especially at the induction because you find a challenge like when people are recruited and only inducted for like say two days. This duration is insufficient because the new recruits may be posted at a branch let us say ten of them and the few staff members at the branch may not be able to give all the necessary information they would need within that short period. So the training should be given ample time or people recruited should be inducted first at Head office or in up country branches where clients are few in number."

"*We have had staffs that leave because of simple things which can be managed. We need to address human resource issues and concerns. Of course human resource issues are not easy some times because you are managing the personality and attitude and they are very*

dynamic and different depending on the individual. As managers, we need to understand different personalities and design the appropriate ways to address them so that we avoid the issues of staff turnover because in most cases when you lose a staff, he goes with his portfolio. They need to give a lot of power to the managers. Management takes long to make decisions. "

The preceding answers given by the managers emphasise that the involvement of the leadership of the FIs is an important factor in ensuring that knowledge is effectively managed in the FIs. Leadership is the ability to influence and develop individuals and teams to achieve goals that have been set by the organisation (McDonough III et al., 2008). Previous studies support this aspect by stating that leadership is a key driver for effective KM and the absence of adequate leadership appears to have resulted in the failure of many KM initiatives (Guan Gan et al., 2006; Armstrong, 2009). With regard to the type of leadership style, all cases had an officer in charge of KM, who is assumed to be a transactional leader to guide and motivate subordinates in the direction of established goals by clarifying the role and task requirements. Although the officers in charge of KM in both cases are transactional leaders, they are performing a responsive role. It was also noted that these organisations are leaders in their sector.

B3. Customer satisfaction

Customer satisfaction has not been investigated in the questionnaire, see B5 in subsection 3.3.2. Therefore we leave it out in this discussion.

C: Competitiveness

In this subsection we present the findings from the interviews with managers with regards to their perception on the contribution of KM to competitive advantage in the FIs in Uganda. The topic of competitive advantage is expressed as resources and capabilities. To analyse the responses we propose three themes: (C1) Improved products, (C2) Employee competence, and (C3) Customer service. Below we discuss these three themes.

C1. Improved products

There has been an improvement in the products and transactions. A big number of respondents suggested that the products they offer to their customers give them a competitive edge in the industry. The managers gave the following answers. The accompanying question reads: How has KM contributed to the FI products?

A typical Case 1 answer is:

"*The bank is diversifying its services to meet customer demands, with new products such as corporate banking, mobile banking, and e-cash.*"

A typical Case 2 answer is:

"We have different products such as; individual lending, we have salary, we have the village growth and of recent we have introduced the group loans of five people and so on. We have a diversity of products and the branches have also increased so we have a wider coverage."

"*… we have quite many products for example; we have regular banking, different types of credit, mobile money, mobile banking, etc."*

The managers confirmed that innovation and creativity are important in a theoretical sense. Several new products are on the Ugandan market and there is likelihood that more will be introduced when going forward. Innovation and growth in the banking market are essential for meeting the needs of consumers and businesses for financial services, but they also generate new sources of risks. However, the development of new products is not of utmost importance in the financial services sector. The most important thing is being on top of the competition. The managers from Case 2 opined that they had a competitive advantage over FIs in Case 1 because of the unique products and clients that they were able to offer. We note that most of their clients are low income earners, who constitute a majority in Uganda. The products include: credit, e-banking, mobile money, mobile banking, ownership of ATMs, and tailor-made loans for specific groups.

The FIs have put in place all kinds of products to improve on the quality of customer care: a good number offer ATM cards for all customers who need them; extension of operating times, for example from 8.30 am to 6.00 pm[19]; and reduction of loan interest rates.

C2. Employee competence

The theme of employee competence emerged strongly from the interviews as a contribution to the FIs competitive advantage. The existing KM practices have improved, in particular, the employee competences. The question reads: How does the FI remain competitive?

A typical Case 1 answer is:

"...as I said that, we get good people with experience from other banks; we give them good jobs and of course these people always come with their customers. This is a strategy on how we can increase our loan portfolio by considering people who are already in the field and people who have been in good organisation and we target the products they are offering."

19 Bank opening time was formerly 9.00am- Closing time was 3.00pm

A typical Case 2 answer is:

"The only way to remain competitive and move on the path of sustainability is to have a strong knowledge base of your businesses." "I think the continuous application of knowledge in our day to day work, would help in reviewing the gaps that exist in our operations and fill them from time to time which would improve performance."

"We try as much as possible to place people in the right places especially where they have the right competences and where we identify gaps. We train people to ensure that they are given more knowledge and may be even more skills to develop them better. One way through which knowledge is developed is that when it comes to promotion, we advertise internally before advertising externally. The assumption is that when you get someone internally, you know his competences better; you know where he can fit best, and where he can be developed."

The findings suggest that greater attention and resources are needed to influence KM practices and related competence issues in organisations since competences are behaviours required by an individual to meet superior performance expectations of the job. Our finding corroborates the findings of Sagala and Chalkiti (2007) who observed that it is not the "knowledge" or people you hire that are the assets, but their capabilities that bring real value to the firm. The same view was established by Raja Suzana (2008) in her study on KM as applied by public service managers in Malaysia.

C3. Customer service

A relationship was suggested between KM and improving the customer services provided by the FIs. This was an interesting topic. The question reads: what outcome services are important products of KM?

A typical Case 1 answer is:

"Of recent we are creating products that are user friendly to our customers. Before we used to be so rigid everyone used to know us as a "Whiteman's" bank but of late we have tried to reach out to the lowest person by creating products that suit them."

"I think people should be exposed to a wide range of areas because the rate at which business competition is, we need exposure in each and every area so that you can get the knowledge and use it to compete with others favourably."

A typical Case 2 answer is:

"To improve our customer care we are using the acquired knowledge to try to improve on skills and improve our sector; by learning what other banks are charging and we try to look for good customers. We also advise our customers on the best options to take."

"Yes, KM has been there because we started with customer awareness about the bank. We started giving promotions; we participate in giving lending's in every district. In so doing customers will have to know that the bank exists and after that people will start enrolling and at the end of the day we shall increase on customer base."

The findings revealed that KM is a novel concept but also one that is fairly understood by the Uganda financial service sector. The respondents revealed that they are trying to reach out to their customers by having very many branches countrywide and the promotion of products, e.g., agriculture loan, loans to all government employees; and giving a long term loan repayment to business owners, which has enabled them to grow faster. This finding matches the conclusions made by Chung and Wu (2005) who observed that the firm with strong internal structures, processes, and organisational culture can provide enduring customer service excellence and become more efficient in its operations. This finding was in agreement with Alstete (2007) when considering knowledge growth stages in organisations. There is evidence of knowledge growth stages in the FIs that could result into long-term improved performance.

The managers considered themselves as competitive, not only in Uganda but at the global market, since most of them are foreign-owned. Even though some of the respondents felt that KM is another approach, the majority of the respondents indicated that KM is a major strategic imperative for staying competitive. Although various barriers to KM were identified, the results indicated that KM was seen by the managers as a new way to expose tacit knowledge, as well as a more effective way of creating and organising corporate knowledge in FIs in Uganda. In our findings we note the rather positive reactions towards KM as a requirement for performance improvement from our sample during the interview process.

6.10.3 Performance Improvements Measures

The managers evaluate and choose strategies that they think will make their business successful. The emphasis from the managers on the UFI model for HPO was that there must be an understandable active commitment to moving to an HPO which is visibly supported by the top-management. The question reads: what measures are taken in the FI to achieve HPO?

A typical Case 1 answer is:

"Yes, actually we have engaged a consultancy firm which has to ensure that they review the processes; the strategic management process, risk management, operations, and manuals, including job descriptions, et cetera. So we think in a very short time, we are likely to have an optical level because they are carrying out what we call right sizing which would bring efficiency in operations."

A typical Case 2 answer is

"*Of course the efforts are there to improve performance. This ranges from reviewing performance on the monthly basis unlike the former way where you would review either quarterly or semi–annually. We have adopted a balance score card kind of performance management tool where we try to make everybody accountable for their performance. So we put it down and cascade it right from the target level, to the operational level and to the individual and even this objective for the organisation; what can you do for the organisation; what is your contribution and how can it be measured?"*

The indicators of high performance, as suggested by respondents from the FIs, are unique to the service industry (cf. Waal, 2012), in the sense that the HPO characteristics are perceived differently in different industry environments. HPO is perceived according to the environment in which it is presented. In spite of the strategies the FIs have adopted, they are struggling to attain and sustain a high performance level; the average performing FIs are also striving to attain HPO.

Contextualising the respondents' arguments on HPO, we find that in developed countries the HPOs are determined at the level of the score 8.5, as suggested by Waal (2011). In Uganda, the FIs are considered to be HPOs by the respondents when they had been in existence for the last 5-10 years, and were ahead of their competitors both in financial and non-financial results. The respondents based their arguments on the indices they were familiar with in the industry: (1) profitability; (2) portfolios; (3) market share in terms of FIs' outreach; and (4) the diversity of the products offered.

Over the decade, new entry and regional economic integration have combined to stimulate competition in the financial service industry in Uganda. The respondents observed that the FIs are facing stiff competition in the country which would require benchmarking with best practices, such as the HPO framework, to cope with the global competition. At this moment we expect this step to be made in the near future.

6.11 Chapter Summary and Conclusions

In this section we summarise the main findings in 6.11.1, we provide the chapter conclusions in 6.11.2, and the recommendations in 6.11.3. The answer to RQ4 is given in 6.11.4, and the answer to RQ5 is given in 6.11.5.

6.11.1 Chapter Summary

1. We began by giving a brief description about the data collected. Then we explained the demographic characteristics of the FIs, the employees, and the managers.

2. We performed a PCA for the variables in the UFI model for HPO. We extracted five factors for the HPO framework namely management quality, workforce quality, long term orientation, continuous improvement, and openness and action orientation. However, the factor openness and action orientation (OAO) was removed from the model because it had a low Cronbach alpha coefficient. We extracted three factors for KM which we named knowledge acquisition, knowledge dissemination, and knowledge responsiveness. In addition, we extracted three factors for high performance and these were named financial and non-financial high performance and competitive advantage.

3. We presented descriptive statistics: the means and standard deviations were generated based on the extracted items from the PCA. They did not show a great deviation from each other.

4. The correlation matrix showed that there was a positive and significant correlation between all the study variables. For the eleven study variables in the UFI model for HPO, a correlation matrix table was drawn up. The Cronbach's alpha for the variables was extracted and presented in the correlation matrix table.

5. Thereafter, we analysed the correlations of the extracted variables with the aim of answering RQ4 and RQ5. We performed a correlation test to establish the relationship between the HPO framework and high performance, and the HPO framework and KM. Management quality and long-term orientation had a strong and positive relationship with high performance; however, management quality had a negative weak relationship with high performance. Conclusions from the correlation tests indicate that the HPO framework is positively and significantly related to high performance.

6. We performed a correlation test to establish the relationship between the HPO framework and KM. The results indicate that there is a positive and statistically significant strong relationship between the HPO framework and knowledge management.

7. When we performed regression tests we established that management quality and long-term commitment are not significant predictors of high performance. However, the composite of the HPO framework significantly predicts high performance in the FIs. The HPO framework has a significant and positive influence on high performance. For regression between the HPO framework and KM, we found that (a) workforce quality explained the highest variance, followed by (b) long-term orientation. Then (c) continuous improvement and renewal followed. Finally, (d) management quality did not have a significant influence. All this implies that the HPO framework is closely associated with KM.

6.11.2 Chapter Conclusions

The results from the interviews were analysed with respect to the KM strategies employed by the FIs. The findings show that the managers had positive perceptions about the knowledge initiatives in the FIs. From the analysis we may conclude (conclusion 1) that with the right KM strategies the human resources in FIs can be utilised as the major resource to attain and sustain HPO. The findings indicate that the FIs were in different phases of KM adoption and practice.

The managers believed that KM has contributed towards improving the performance of FIs in the financial and non-financial areas of operation. They substantiated their belief as follows. For the financial area KM has contributed towards the innovations of new products and transactions. For the non-financial area, contributions are perceived as the market share (outreach), employee satisfaction, and involvement in KM activities. Moreover, the contribution of KM towards competitive advantage was seen in relation to the products offered on the market, employee competencies, and better customer services. We may therefore conclude (conclusion 2) that there is a clear relationship between KM and high performance in FIs in Uganda.

The perceptions of the managers on the performance indicated a readiness for change towards business models that can provide adequate interventions for HPO. The UFI model for HPO was generally supported by some revisions. The managers revealed that in their opinion several external factors would affect the employees' perceptions concerning KM and their attitudes, which would in turn influence KM practice and would have an impact on the perceived high performance for the FIs.

6.11.3 Four Recommendations

From the findings of the interviews with managers in the FIs we reached four recommendations.

Recommendation 1, the KM strategy should capture only knowledge practices that impact the long-term earning capability of business. Therefore, effort to identify measures for

HPO must be rooted in the business vision, mission or strategy of the institution, since KM practices are a consequence of the strategy. This was originally the preposition we worked upon, and no data coming from the study disproves this proposition. We believe that this recommendation provides the starting point for what we should measure and eventually, how we should manage to obtain HPO.

Recommendation 2, the FIs studied convinced us that the KM practices are entrenched in the culture (language values, systems, other practices) of the service industry. The important concepts used in the interviews and texts centred on KM practices and the financial issues. With the help of the respondents, the success factors were identified, such as principal product knowledge, the market share, the business (high profitability and customer care), and the importance of the fact that the meaning of these concepts must be familiar to all employees. In our interviews, we tried to modify the concepts completely, using standard theoretical terms suggested by the literature, but in these cases the managers were not sure of their own statements of KM, and the statements themselves sometimes lost their meaning. Our recommendation reads that managers should be given the opportunity to have some experience abroad.

Recommendation 3, the foreign owned FIs adopted KM strategies from their country of domicile. This is an indication that KM practices do exist in the FIs. Therefore, KM practices may be easier to start and be sustained in various activities in indigenous FIs, especially in those that do not involve monetary transactions. We believe that KM can be enhanced in the area of FIs performance since the practice is not entirely new. Our recommendation is that the existing KM strategies should be used as a basis to adopt further KM practices in specific functions such as FIs performance.

Recommendation 4, analogously to Pillania (2008) but contrary to several other sources, which list the initial conditions for knowledge management (Green, 2006; Gao, 2008) we see that the urgency of the concept of KM is one of the critical practices of FIs. Our recommendation is that the benefits as identified by respondents for KM practices should be implemented. KM is quite more relevant in Uganda, where planning is rarely done or when they plan there is less emphasis on implementation (Turyasingura, 2008). This calls for the need of a KM strategy or motivation for KM practices in the FIs, to retain the knowledge.

6.11.4 Answer to Research Question 4

Below we answer *RQ4: What is the relationship between the HPO framework and high performance in FIs in Uganda?*

From Tables 6.12 and 6.13, we see that there is a positive relationship between the HPO framework and high performance in Uganda. The correlation results established such a

strong relationship between the HPO framework and high performance in FIs in Uganda. The main factors are: management quality, workforce quality, long-term orientation, and continuous improvement. Long-term orientation does not have a significant influence on high performance in FIs in Uganda. In summary, the composite of the HPO framework explained a significant variance in high performance, an indication that there is a relationship between the HPO framework and high performance in FIs in Uganda.

6.11.5 Answer to Research Question 5

Below we answer *RQ5: What is the relationship between the HPO framework and KM in FIs in Uganda?*

From Tables 6.14 and 6.15, we see that there is a positive relationship between the HPO framework and KM in FIs in Uganda. There is even a statistically significant positive relationship between the HPO framework and KM in FIs in Uganda. The workforce quality has the highest variance in KM. There was a weak relationship established between continuous improvement and renewal and KM, and the factor management quality does not predict knowledge management in FIs.

6.11.6 Chapter Conclusion

In our study, i.e., taking into account our research sample, we observe positive reactions towards the HPO framework as requirement for performance improvement. The environment is (1) highly competitive, (2) ready to adopt the HPO framework, and (3) ready to implement the UFI model for HPO in FIs in Uganda. The FIs are competing on two major fronts: (a) the customer service and (b) the skill of service.

In the same study, we observe positive reactions towards KM as a requirement for performance improvement. Many KM strategies were suggested by the respondents as a possibility that may help the FIs improve on their performance.

CHAPTER SEVEN

An Analysis of the UFI Model for HPO

7.0 An Analysis of the UFI Model for HPO

In this chapter we investigate RQ6 and RQ7. The investigations are based on the results obtained by analysing the data collected in Survey 3. More precisely, the data was collected from the 213 employees of the FIs by distributing Questionnaire 2. The two research questions read as follows.

RQ6: What is the relationship between KM and high performance in FIs in Uganda?
RQ7: Does KM influence the relationship between the HPO framework and high performance in
FIs in Uganda, and if so in what manner?

To answer RQ6 and RQ7, we used the following methods (1) correlation analysis, (2) multiple regression (3) hierarchical regression, and (4) structural equation modelling. The emphasis of our research is on determining the existence of any mediating effect of the variable knowledge management in the relationship between the HPO framework and performance. Here we remark that we have discussed Claim 1 and 2 in Chapter 6. So, we start the discussion with Claim 3 (see 7.1.1), followed by Claim 4 (see 7.2). We complete our research by investigating all the claims together.

The chapter is organised as follows: in section 7.1 the results of the correlation analyses of the UFI model variables are presented. In section 7.2 we discuss the relationship between KM and high performance. In section 7.3 we test the predictive power of the study variables. In section 7.4 we test for the mediation effects. In section 7.5 we present the structural equation modeling results. In section 7.6 the chapter conclusions are provided together with the answers to RQ6 and RQ7.

7.1 Correlation Analysis of UFI model Variables

In this section we discuss the results that deal with the correlation of the global variables: the HPO framework, KM, and high performance. In order to answer the questions and to test the claim related to the mediation effect a zero-order correlation analysis is carried out. The aim is to assess whether linear relationships exists between the predictor variable the HPO framework, the mediating variables (knowledge management), and the criterion variable (high performance).The results are presented in Table 7.1.

Table 7.1 Zero-order correlations between the global variables.

Variable	HPOF	KM	HP	Mean	Std. Deviation
HPO framework	1			7.81	.587
KM	.877**	1		7.85	.676
High-performance	**.677****	**.692****	1	7.01	.963

** Correlation is significant at the 0.01 level (2-tailed). N= 26
***Source*:** Primary data.

Table 7.1 shows the correlation matrix which provides a summary of the correlation coefficients of the study variables. In line with the claims stated in this study, we investigate the extent to which they can be confirmed.

7.2 The Relationship Between KM and High Performance

In this section, we present the findings on the relationship between the three KM processes: (knowledge acquisition, knowledge dissemination, and knowledge responsiveness) and high performance. The results are presented in two parts. In subsection 7.2.1 the correlation between the KM processes and high performance is thoroughly described. In subsection 7.2.2 the influence of the KM processes on high performance is discussed by using regression tests. All the findings are in line with the UFI model for HPO.

7.2.1 Correlation between the KM processes and high performance

There is a strong correlation between the KM processes and high performance;the finding could be traced to earlier findings by Darroch (2005). In the same vein, Singh et al. (2006) argue that KM practices affect (i.e., influence) performance, while exhibiting a significant relationship among them. The views expressed in the two publications mentioned led to the testing of the relationship between the knowledge processes and high performance. The results were analysed and the results are presented in Table 7.2.

Table 7.2 Zero-order correlations between KM processes and high performance.

Variables	KA	KD	KR	HPO	Mean	Std. Dev.
Knowledge acquisition	1				8.15	0.71
Knowledge dissemination	.479*				7.62	0.86
Knowledge responsiveness	.601**	.767**			7.78	0.78
High performance	**.522****	**.578****	**.692****	1	7.01	0.96

*. Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).
Source: Primary data

Table 7.2 shows the basis of the mean values of KM processes, and high performance. It is evident that respondents acknowledged that an FI's high performance could be enhanced if much attention is put on the KM processes. We partition KM into (A) knowledge acquisition, (B) knowledge dissemination, and (C) knowledge responsiveness. Subsequently in each part we describe the correlation process with high performance.

A: *Knowledge acquisition and high performance*

The results show a positive relationship between knowledge acquisition and high performance ($r = .522$, $p < 0.05$). This finding means that an improvement in knowledge acquisition practices is associated with improved performance. The knowledge acquired cause performance to improve in FIs.

B: *Knowledge dissemination and high performance*

The results reveal a positive statistically significant relationship between knowledge dissemination and high performance ($r = .578$, $p < 0.01$). This finding means that an improvement in knowledge dissemination is associated with improved performance. We observe that the relationship was fairly strong. This is true because the interactive behaviour of the individuals and their willingness to generate and disseminate knowledge in the organisation can increase the knowledge base, which is a source of experience and better performance (cf. Kalling, 2003; Masele, 2008).

C: *Knowledge responsiveness and high performance*

We observe a statistically significant positive relationship between knowledge responsiveness and high performance ($r = .692$, $p < 0.01$). This finding means that an improvement in knowledge responsiveness is associated with high performance. An increase in the employees response to the knowledge received will result in a level of improved performance of the institutions. We also observe that the relationship is moderately strong.

D: Support for Claim 3

Here we consider KM to be the composite of knowledge acquisition, knowledge dissemination, and knowledge responsiveness. When giving the high performance a value, we believe that it should be the average of the financial, non-financial variables, and competitive advantage. We observe a positive statistically significant relationship between KM and high performance ($r = .692$, $p < 0.01$). We also observe that this relationship is quite strong. Thus, the findings provide a quite strong support to Claim 3, i.e., there is a positive relationship between KM and high performance. This finding means that an improvement in KM practices is associated with improved performance. Thus, KM causes an improvement in performance in FIs.

7.2.2 The Influence of KM processes on high performance

In order to establish the influence that KM processes have on high performance in the FIs we performed a linear regression test. Linear regression is the next step up after correlation. It is used when we want to predict the value of a variable based on the value of another variable. The regression coefficients are used as indicators of whether or not the contribution of each variable is significant, which further tests the validity of the claims. The overall contribution of the variables is indicated by the variance explained (R^2) that also shows the influence of the variables. This is in an attempt to realise the purpose of the study (see section 1.4) as well as to obtain further evidence for support of Claim 3. The regression results are presented in Table 7.3.

Table 7.3 The regression between the KM processes and high performance.

Model	Beta	t	Sig.	R^2
Independent variable		-.362	.720	
Knowledge acquisition	.164	.869	.394	
Knowledge dissemination	.109	.465	.646	
Knowledge responsiveness	.509	1.975	.061	**501**

*p < 0.05, **p < 0.01 *Dependent variable high performance*
***Source*:** Primary data

In Table 7.3

1. Coefficients, provide us with information on each predictor variable. This gives us the information we need to predict the KM processes. By looking at column Beta we can establish that each KM process has a contribution to high performance.
2. The t statistic is the precision by which the regression coefficient is measured.
3. The regression column Sig. indicates the statistical significance of the regression model that was applied.
4. The R^2 value indicates how much of the dependent variable, (i.e., high performance), can be explained by the independent variables.

In Table 7.3 the regression results indicate that two of the three factors under KM that is, knowledge responsiveness and knowledge dissemination, explained the variance in high performance. Knowledge responsiveness explained the highest variance of (Beta = 0.509; Sig. < 0.05), followed by knowledge acquisition which explained the next highest variance (Beta = 0.164; Sig > 0.05), and knowledge dissemination that explained the least variation (Beta=.109; Sig. > 0.05). The overall explanation of the three processes of KM is 50.1% of high performance (R^2 = .501; Sig. < 0.01). The composite of the KM processes are found to account for up to 50.1% of the variance in the high performance variable. We observe

that knowledge responsiveness contributes the biggest percentage as compared to the rest of KM processes; a discovery that reflects the earlier findings by El-Bannany (2008). This finding provides further support for Claim 3.

Having analysed the correlation and regression between the variables, the researcher further tested the effect and the explanatory power of the HPO framework, knowledge management, and high performance in section 7.3.

7.3 Testing the Predictive Power of the Study Variables

In this section we test the effect of HPO framework, KM, and high performance, by investigating their behaviour with the help of three models. The three models are described after Table 7.4. In essence they differ by their precise definition of high performance. We use three definitions in order to establish to what extent high performance is reachable in the FIs in Uganda. Of course, more models are possible, but we believe that our selection set adequately covers the possibilities and provides relevant insights. We further sought to test the explanatory power of the HPO framework and KM, when predicting high performance. We do so for all three models.

The exploratory power of the variables can be tested using regression analysis, in particular the hierarchical regression analysis that determines the contribution of each predictor variable in the regression (see Field, 2009). Moreover, Pallant (2011) supports the hierarchical regression method and observes that the method helps in (1) testing the theoretical assumptions and (2) examining the influence of several predictor variables in a chronological way. By doing so, the relative importance of a predictor is assessed on the basis of how much it adds to the prediction of a criterion variable.

The regression coefficients are used as indicators of the observation whether or not the contribution of each variable is significant. The next step is to test the validity of the claims. The overall contribution of the variables is indicated by the variance explained (R^2) that also shows the predictive power of the variables. We perform a hierarchical multiple regression to test the extent to which the HPO framework and KM explain the variance in organisational performance. We attempt to realise the purpose of the study (see section 1.4) as well as obtain further evidence for support of our claims. The regression results are presented in Table 7.4.

Table 7.4 The hierarchical regression of high performance on KM and HPO framework.

	Model 1	Model 2	Model 3			Collinearity Statistics	
	Beta	**Beta**	**Beta**	**t**	**Sig**	**Tolerance**	**VIF**
Independent Variable				- 1.364	.187		
Institution Phase	.479	.284	.281	1.858	.077	.848	1.180
No of Employees	.380	.225	.203	1.353	.190	.866	1.154
KM		.524**	.329*	1.114	.278	.223	4.490
HPO framework			.230	.779	.445	.223	4.485
R	.605	.761	.769				
R^2	.366	.579	.591				
Adjusted R	.331	.522	.513				
ΔR^2 change	.366	.214	.012				
ΔF change	6.636	11.171	.606				
Sig. F change	.005	.003	.445				
F statistics	6.636	10.104	7.594				
Sig.	.005	.000	.001				
Durbin Watson					1.633		

*p < 0.05; ** p < 0.01

Source: Primary data

We distinguish four independent variables: Institutions phase, Number of Employees, KM, and the HPO framework. From them we form three sets of predictor items. Each set determines a value for the dependent variable high performance.

Below, we formulate the four models of Table 7.4.

Model 1: IP+NE

Model 2: IP+NE+KM

Model 3: IP+NE+KM+HPOF

The abbreaviations stand for: HP–High performance, IP-institutional phase, NE- number of employees, KM- knowledge management; and HPOF- HPO framework. To be precise: the formulae for the regression equations are as follows:

Model 1: $HP = a + b_1 IP + b_2 NE$

Model 2: $HP = a + b_1 IP + b_2 NE + b_3 KM + e$

Model 3: $HP = a + b_1 IP + b_2 NE + b_3 KM + b_4 HPOF + e$

In which a= constant, b_1, b_2, b_3, b_4, = weighting coefficients, and e = error term. For the *values* of a, b_1, ----b_4, and e we refer to Appendix N.

(Some) explanations are given below.

The regression results in Table 7.4 indicate that the variables entered in the regression explain up to an overall 59% of the variance in high performance. (R^2 = .591 of the variance explained. ΔF change .606 = p > 0.05; β = .230, Sig. < 0.00). The variance that is attributed to the control variables is not significant R^2 = .366 (ΔF = .6.62; Sig. p >.05). The results indicate that KM significantly explain of the variance explained R^2 = .579 (ΔF = 11.17, Sig. < .05),

respectively of the variance in high performance. However, including the 1% of the HPO framework (ΔR^2 = .012) is also not significant. The results in Table 7.4 are produced by the three models. Below, we present an annotation of the main results. For details, we refer to Appendix O.

7.3.1 Model 1: IP +NE

Model 1 consists of the institutional phase (IP) and the number of employees (NE). The demographic characteristics (institutions phase of operation, number of employees), have an insignificant explanatory power of 37% (ΔF = .366, Sig. > .05) total variance explained. The results also indicate that the institutional phase of growth (β = .479, Sig. > .05) and the number of employees (β = .380, Sig. > .05) as control variables do not have a statistically significant relationship with high performance. This may imply that the institutional phase of growth and the number of employees do not have a significant effect on performance. This seems to suggest that high performance may be attained regardless of the institutions growth phase or the number of employees. We observe that demographic variables did not have any significant contribution to high performance over and above the global variables. The effect of the global variables on high performance was therefore independent of the effects of the demographic variables that we controlled for.

7.3.2 Model 2: IP + NE+ KM

In Model 2: KM is added to the demographic factors. The predictive power increased from .366 to .579% (ΔR^2 = .214, Sig. < 0.01). Model 2 also reveals a statistically significant relationship between KM and high performance (β = .524, Sig. < 0.01), providing evidence that KM is significantly and positively related to high performance. This finding supports Claim 4 that there is a positive relationship between KM and high performance. We can thus state that KM, among other factors can explain to a certain extent the variance that may occur in the level of performance in the FIs in Uganda.

7.3.3 Model 3: IP+ NE +KM + HPOF

In Model 3: The introduction of the HPO framework is added in the regression with respect to Model 3. It results in a very small predictive power of 1.2% (ΔR^2 = .012). Thus, the small contribution of the HPO framework to the variance explained is 1.2% of high performance. The results also indicate an insignificant relationship between the HPO framework and high performance (β = 0.230, Sig. > 0.05). Further, this model provides evidence that the KM processes mediate the relationship between the HPO framework and high performance. This finding therefore provides partial support for Claim 1, which states that there is a positive relationship between the HPO framework and high performance. In this case, the relationship between the HPO framework and high performance is positive but not significant even though the zero order correlation results indicated a significant

relationship (r = .677). As asserted before by Field (2009) we cannot rely on correlation coefficients to test hypotheses or claims, but to some extent it should be done at least on regression coefficients. The insignificant relationship between the HPO framework and high performance may presuppose an indirect relationship that requires a mediator such as KM. This assertion was tested using the mediation test and the results are presented in section 7.4.

The overall predictive or explanatory power of all variables in the Model 3 is $R^2 = .591$. This indicates that the HPO framework and KM when combined, explain up to 59% of the variance in the high performance of FIs in Uganda. However, the order in importance of these variables in explaining the variance in high performance (based on their standardised beta values) is as follows. It begins with KM, then the HPO framework and the demographic factors. Nonetheless the HPO framework has an insignificant contribution in model 3. The results confirm that the relationship between the HPO framework and high performance is indirect and the relationship is significant only through the mediation effect of knowledge management.

As a critical matter we here remark that a sample of 26 is hardly sufficient to show statistical significance, even in areas where they may exist, especially for the regression model with three or more constructs. Yet, the purpose of the study is to answer the PS: *To what extent can KM help financial institutions in Uganda to become high performance organisations?* So, our section conclusion reads that model 2 is our preferred model.

After we had tested for the predictive power of the variables, there remained the clear need to conduct tests for mediation in order to examine the mediation objective and the claim. We do so in section 7.4.

7.4 Testing for Mediation Effect

In this section we test the mediation effect of KM in the relationship between the HPO framework and high performance.

Mediation is a conjectured causal chain in which one variable affects a second variable which, in turn, affects a third variable (cf. Pearl, 2011). The intervening variable M is the mediator. It "mediates" the relationship between a predictor, X, and an outcome Y. The paths *a* and *b* are called "direct effects". The mediation effect, in which X leads to Y through M, is called the indirect effect (cf. Pearl, 2011).The indirect effect represents the portion of the relationship between X and Y that is mediated by M.

In this section we answer research question RQ 7 which read as follows.
RQ7: Does KM influence the relationship between the HPO framework and high performance in FIs in Uganda, and if so in what manner?

To answer the research question we followed the conditions as set by Baron and Kenny (1986). According to Baron and Kenny (1986), Frazier, Baron, and Tix (2004), and Paul Jose (2008), four conditions must exist for mediation influence to be established. These are as follows.

(1) There must be a significant correlation between the predictor variable and the dependent variable.
(2) The predictor variable must account for a significant proportion of the variance in the mediating variable.
(3) The mediating variable must account for a significant proportion of the variance in the dependent variable.
(4) The effect of the independent variable on the dependent variable must be less in the third regression model or equation.

Baron and Kenny (1986) also pointed out that meeting all the four steps does not conclusively establish that the hypothesised mediation model has occurred because there are other alternative models that meet the above specification.
For mediation to exist, the following three mediating conditions should hold: (1) the effect of the independent variable (i.e., the B value, see Table 7.5) in the third equation must be less than the effect of the independent variable in the second equation. If this is true and (2) the effect of the independent variable is not significant in the third equation, then there is full mediation. If this is true and (3) the effect of the independent variable is still significant in the third equation, then there is partial mediation. Please not there are different conditions.

In order to ensure that the Baron and Kenny (1986) conditions are met, the multiple regression analysis or Ordinary Least Squares (OLS) were run to assess whether the four Baron and Kenny conditions given above had been met. This investigation was undertaken by testing one claim.
Claim 4: There is a significant mediation effect of knowledge management on the relationship between the HPO framework and high performance in FIs in Uganda.

We test the mediation effect of KM in the relationship between the HPO framework and high performance with the help of three models. They are described after Table 7.5. In essence they differ by the precise definition of regression. Of course, more models are possible, but we believe that our selection set adequately covers the possibilities and provide relevant

insights. Based on the conditions of mediation seen above, the results are provided in Table 7.5.

Table 7.5 The mediation effect of KM on the HPO framework and high performance.

Variables	**Predictor**			**Dependent Variables**					
	KM			High performance					
	Model KM1			**Model KM2**			**Model KM3**		
	B	se	Beta	B	se	Beta	B	se	Beta
Intercept	1.838	.671		-1.667	1.930		-1.642	1.893	
KM	.761	.085	.877**	1.110	.246	.677**	.609	.436	.428*
HPOF							.495	.502	.302

N = 26, **p < .01, *p, <.05
***Source*:** Primary data

IV = Independent variables; B = unstandardised beta coefficient, se = standard error; Beta= standardised beta coefficient.

The above models are explained as follows:
Model KM1: Regression of KM (mediator) on HPO framework (Predictor variable).
Model KM2: Regression of high performance (criterion variable) on the HPO framework (Predictor variable).
Model KM3: Is the regression of HP on both HPOF and KM (Mediating variable).

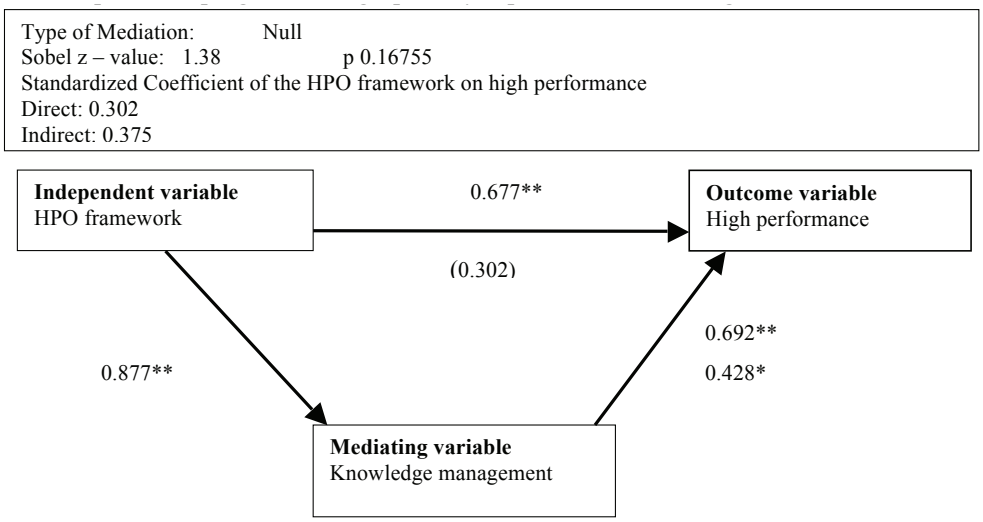
The result in Model KM1 which is the regression of KM (mediator) on the HPO framework (predictor) show that the relationship between KM and the HPO framework is significant ($\beta = .877$, $p < .05$). Model KM2 results which are a regression of high performance (criterion variable) on the HPO framework also reveal a significant relationship between the HPO framework and high performance ($\beta = .677$, $p < .05$). Likewise, the results in Model KM3 which is the regression of high performance on both the HPO framework and KM indicate that; while KM has a significant effect on high performance ($\beta = .428$, $p < .05$), the effect on the HPO framework on high performance reduces and becomes ($\beta = .302$, $p > .05$).

Overall, the regression results support the conditions for mediation to be realised. Therefore, according to Baron and Kenny (1986) and Kenny et al. (1998), KM mediates the relationship between the HPO framework and high performance, which leads to the acceptance of Claim 4.

However, the significance of the mediation effect is not yet tested because we cannot rely on Baron and Kenny's (1986) regression equations to prove a meditation claim which may

require other tests like the Sobel' z test. Related to the above results, the significance of the mediation effect and the nature or type of mediation was also tested by calculating the Sobel z–value and ratio index using the Med Graph programme. The Sobel test is testing the magnitude of the mediation. The results are given in Figure 7.1.

Figure 7.1 Sobel test results (the HPO framework, KM, and high performance)



***p < 001, **p <.01, * p < 0.05

Note: The numerical values in the parentheses are beta weights taken from the second regression and the other values are zero order correlations.

In model HPO1, the predictor variable accounts for a significant proportion of variance in the mediating variable (B = .761, p < 0.01).

In Model HPO2, the predictor variable accounts for a significant proportion of variance in the dependent variable (high performance) (B = 1.110, p < .01).

In Model HPO3, the mediating variable (KM) accounts for a significant proportion of variance in the dependent variable (B = .495, p < 0.01).

From Figure 7.1, it is evident that a Sobel z- value of 0.138 (p > 0.168) and the beta weight for the basic relationship between the HPO framework and high performance (r = .677, p < .001) have been registered. These results imply the following.

(i) Since the Sobel z–value is large and significant, it signifies that KM mediates the relationship between the HPO framework and high performance. In practice, it implies that the association between the HPO framework and the high performance has significantly

reduced (from .68 to .30 beta values) after including KM in the third regression model (cf. Jose, 2008).

(ii) Since the correlation between the independent variable and dependent variable has not been reduced to zero after introducing KM, it implies that there is no mediation in the relationship between the variables in question (cf. Frazier et al., 2004; Jose, 2008).

(iii) The ratio index is (.375/.677*100) which in this case means that 55.4% of the effect of the HPO framework on high performance goes through KM (mediating variable), and 30.2% of the effect is direct see Figure 7.1, Model HPO2. So, with sufficient evidence we may state that the KM increases the strength of the relationship between the HPO framework and high performance in FIs.

According to Jose (2008), an index ratio of above 50% normally indicates full mediation although we should actually look at the change in coefficients arising from the third regression equation, and then note whether the change is significant or not. If the change is significant like it is in our case, then there is null mediation probably because the mediator KM does not take over the effect of the HPO framework onto high performance, since the HPO framework carry an effect of ($\beta = .302$ $p < .01$) to the criterion variable (cf. Baron and Kenny, 1986; Jose, 2008). Despite the fact that the Medgraph indicates whether the mediation is full or partial, Jose does not explain the balance of the percentage of the index ratio. For instance, in this study, we got results of null mediation as explained above where the index ratio is 85.6% leaving 14.4% unaccounted for. In this case let us presume that if there were other mediating factor(s) in the model, they would probably account for this 14.4% balance of mediation. The Sobel test results indicate that KM does not mediate the relationship between HPO framework and high performance in the FIs.

Thus, Claim 4 which states that there is a significant mediation effect of KM in the relationship between the HPO framework and high performance is partially supported in the FIs. All in all, we have established a partial mediation for KM in the relation between HPO framework and high performance. We summarise the findings for the claims tested in Chapter 7 in Table 7.6.

Table 7.6 Claim tested in Chapter 7.

Objective	Claim	Claim supported
To establish the relationship between KM and high performance in FIs in Uganda**.**	C3: *There is a positive relationship between KM and high performance.*	Yes
To determine the influence of KM on the HPO framework and high performance.	*C4: There is no significant mediation effect of KM in the relationship between the HPO framework and high performance.*	Partial

Still, there is a debate among scholars that the Sobel test has been shown to have a low statistical power because the distribution of the dependent variables and the independent variables often depart from a normal distribution (MacKinnon et al., 2007). When the sample size is small, it is recommended to use other distributional alternatives (Hoyle and Kenny, 1999). The best alternative to test for the significance of the mediation effect of the variables is considered to be structural equation modelling (Tenenhaus, 2008).

Therefore, we continue testing our model by using structural equation modelling (SEM), specifically using the partial list squares (PLS). The objective of PLS is latent variable prediction and the method is not covariance-based but variance-based. PLS tries to maximise the variance explained of the dependent variables (cf. Barroso et al., 2010). In the next section, we present the results and findings of the second generation analysis through SEM.

7.5 Structural Equation Modelling

In this section we present the technique and results of SEM, in particular PLS. We do so in five basic steps (subsection 7.5.1). In the subsection, 7.5.2 to 7.5.6, the five steps are described.

The purpose of SEM is to investigate to what extent the claims made in Chapter 3 can be confirmed. The presentation of the techniques begins with the path diagram illustrating the model originally specified and estimated by the researcher (see Figure 7.3). We include the method of estimation, the model-fit criteria selected, and the parameter estimates. Moreover, we present a summary of measurement scales with a focus on item loadings, composite reliabilities of the constructs, and the average variance extracted. Subsequently, we also present results of discriminant and convergent validity about the measurement model.

PLS simultaneously models the structural paths, the theoretical relationships among latent variables, and the measurement path relationships between a latent variable and its indicators (cf. Chin et al., 2003; Tenenhaus, 2008). The main objective of PLS is prediction, rather than assuming equal weights for all indicators, the PLS algorithm allows each indicator to vary in its weighting towards the latent variable.

7.5.1 Five basic steps

The proposed UFI model for HPO was fitted ("model fitted") using the PLS stat software following the steps provided by Cooper and Schindler (2008). The five basic steps are as follows.

Step 1: *Model specification*
Specify the formal statements of the model parameters as either fixed or free. These parameters are constants that describe the relations between variables.

Step 2: *Estimation*
Obtain estimates of the free parameters from the observed data. This is often accomplished using an iterative method.

Step 3: *Evaluation of fit*
Assuming, convergence, evaluate the goodness-of-fit criteria. Goodness-of–fit tests are used to determine whether the model should or should not be rejected.

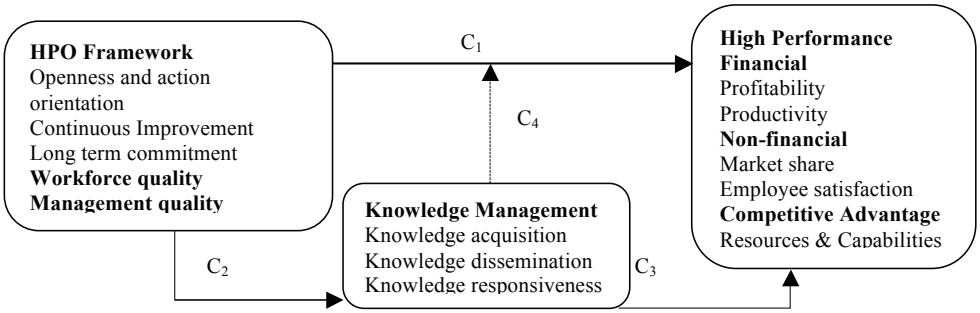
Step 4: *Re-specification of the model*
Model re-specification is necessary when the estimation of the model parameters show indications of a poor fit.

Step 5: *Interpretation and communication.*
Present the SEM claims and results. Most commonly it is done in the form of path diagrams.

7.5.2 Step 1: Model specification

The formal statements of the model parameters are expressed as claims to describe the relationships between the variables. The claims are all positively stated and presented in Figure 7.2.

Figure 7.2 Model specification of UFI model for HPO.



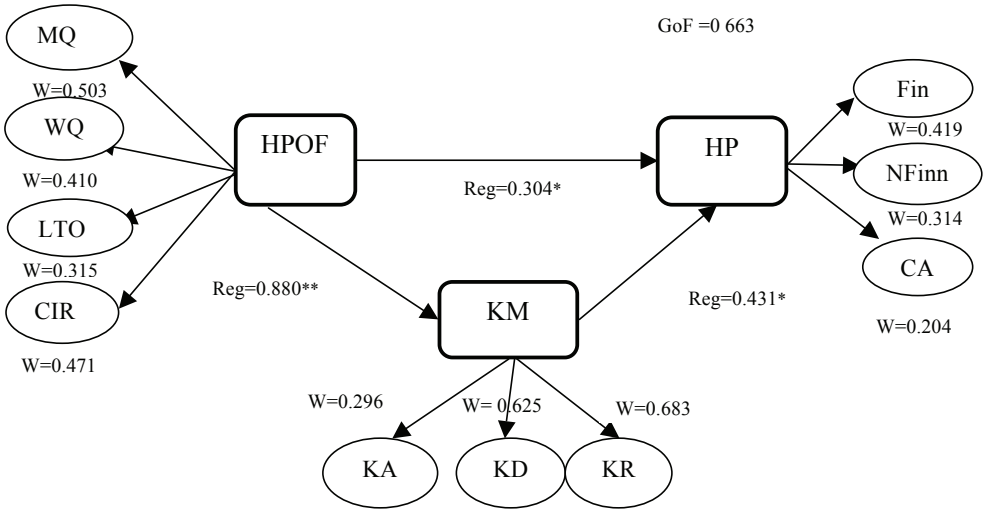
Legenda: C= Claim C1 to C3 are relationship based claims and C4 is the mediation claim.

The original UFI model for HPO in Chapter 3 proposed four research claims from the literature. They are indicated in the model (see C1 to C4). They were tested using the PLS as a confirmatory test with the purpose of confirming or rejecting the claims.

7.5.3 Step 2: Model Estimation

In this step the estimates of the free parameters from the observed data are made using an iterative method. The portion of the model for which parameter estimates are significant is presented, i.e., openness and action orientation (OAO) is removed. The resultant model is presented with re-estimations of the original model presented in Figure 7.2. The significance of the structural relationships is assessed using the bootstrap method that is within PLS software. The relationships are presented in Figure 7.3.

Figure 7.3 The UFI model for HPO evaluation.



7.5.4 Step 3: Evaluation of the Model Fit

Assuming convergence of the model originally specified the estimated model is taken as the basis for our completion. We computed the strength of the regression coefficient (Reg.) between each pair of parameters in the model. For each parameter we computed the weighted of the loading factor of the parameter with its items (see Appendix Q). The results indicate that there are three models realised, namely:

(1) Model 1 shows a positive significant relationship between the HPO framework and high performance (Reg. 0.304).
(2) Model 2 shows that there is a positive significant relationship between HPO framework and KM (Reg. 0.880) and the factors loaded strongly on the two variables.
(3) Model 3 shows a positive significant relationship between KM and high performance (Reg. 0.431).

The results confirmed the three conceptualised relationships. The explanation is as follows.
(1) The relationship between the HPO framework and high performance is positive and significant (Reg. 0.304).
(2) The relationship between the HPO framework and KM is positive and significant (Reg. 0.880).
(3) The relationship between KM and high performance is positive and significant (Reg. 0.431).

From the observations we may conclude that the model has a good fit.
The Equation of the model is: HP = .304*HPOF+ 0.431*KM

7.5.5 Step 4: Re-specification of the Model

To improve the strength of the model, it is re-specified by deleting the relationships which show weaker coefficients. Subsequently the final model is estimated again. In a measurement of the test model we examine: item reliabilities, composite reliabilities, convergent validity, and discriminant validity. We calculate the co-variances to know whether there is a relationship between the independent and the dependent variable.

The model is analysed and interpreted sequentially in two stages: (A) the assessment of the reliability and validity of the new model, and (B) the structural model.

(A) The Assessment of the Reliability and Validity of the new model

The adequacy of the new model is assessed on three aspects: (1) individual item and construct reliabilities; (2) convergent validity; and (3) discriminate validity in PLS (see Table 7.7).

Table 7.7 Summary of descriptive measurement scales.

#	Variable/Construct	Mean	Std. dev	Item loading	Composite reliability	AVE
1	MQ	7.58	0.77	0.530	0.850	0.686
2	WQ	8.05	0.64	0.399		
3	LTO	8.58	0.55	0.316		
4	CIR	7.66	0.71	0.448		
5	Fin	5.52	1.55	0.419	0.787	0.732
6	Non	7.57	0.87	0.310		
7	CA	7.94	0.81	0.210		
8	KA	8.37	0.64	0.296	0.728	0.636
9	KD	8.06	0.77	0.624		
10	KR	7.42	0.74	0.683		

***Source**:* Primary data

The results in Table 7.7 indicate that all three global variables are reliable; with the Cronbach's alpha above 0.7 (see the bootstrap Table Appendix Q). We can point out that social science recommends 0.6 (cf. Hair et al., 2011). According to the results, all the factor loadings are very high as indicated in the results, confirming that the factors used, measured what we intended to measure. Table 7.7 shows that the average variance extracted (AVE) for each construct is 0.636 or more, well above the recommended minimum of 0.5, suggesting good measure of the construct (cf. Esposito and Russolillo, 2011).The results indicate good internal consistence of the constructs.

Further we examine the validity of the constructs. We present the results of the discriminant and convergent validity in Table 7.8.

Table 7.8 Discriminant and convergent validity of the constructs.

Variable	HPOF	KM	HP	R^2
HPOF	**1**			
KM	0.774	**1**		.774
HP	0.462	0.488	**1**	.488
Mean Communalities (AVE)	**0.686**	**0.636**	**0.732**	**Mean 0.631**

Discriminant validity (Squared correlations < AVE)
Source: Primary data

The evidence for discriminant validity is based on the square roots of average variance extracted of each construct that the study found to be higher than the bi-variant correlation coefficients (see column 5 of Table 7.8) of other constructs (cf. Gefen and Straub, 2005). The evidence for convergent validity is based on the fact that the square root of the AVE for each construct is equal or above the cut-off point of 0.7 (cf. Hair et al., 2011). Our results imply that each construct is different from each other and each construct has items that converge on it.

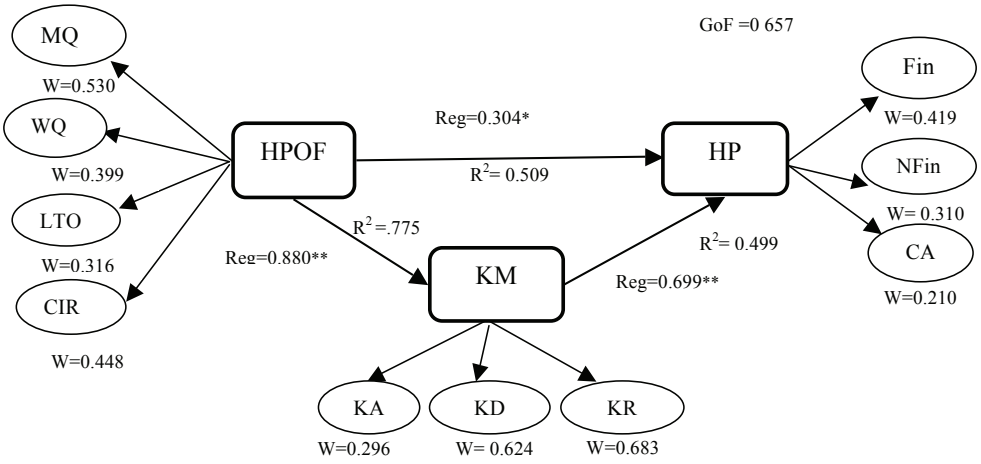
The communality for a given variable can be interpreted as the proportion of variation in that variable explained by the factors. Table 7.9 shows that the assessment of how well this model is doing can be obtained from the communalities. What we wish to see is that the values are close to one. This would indicate that the model explains most of the variation for those variables. In our case, the model does better for some variables such as HP (0.732) which is closer to 1 than it does for others, such as HPOF (0.686), and KM (0.636).

B: The Structural Model Results

The fit of the model is calculated by the global goodness-of–fit formula (see Tenenhaus et al., 2005), which is based on R^2 values. The global goodness–of-fit is found by taking the

square root of the product of the average communality of all constructs and the average R^2 value of the endogenous construct. A fit measure is between 0 and 1. The re-specified UFI model for HPO has a good fit overall with R^2 = 63%, indicating a good fit of the model to the data. The goodness-of-fit of the model is 0.657. This fit is above the largest effect cut-off value of 0.36 which is suggested by Cohen (1988). However, Hair et al. (2010) suggest that the acceptable level depends on the research context. In the context of FIs in Uganda the final fitting of the structural model is given in Figure 7.4. It is based on the data of Table 7.7 and Table 7.8. Arising out of the path coefficients, we present the research model in Figure 7.4.

Figure 7.4 The UFI path advanced model for HPO by re-specifications.



The Assessment of the advanced Model

From our computations, shown in Figure 7.4, we may establish the following: the path model results indicated that four models are significant, viz. The HPOF–high performance model, the HPOF–KM model, the KM–HP model, and the HPOF–KM–HP. Other coefficients below 0.05 were removed from the model, indicating that they are not significant in the population used. So, the path model results indicate that there are four models from the analysed data: The models are provided below with their equations.

Model 1: Shows a good relationship between the HPO framework and high performance
Equation of the model: 1 KM = 304*HP
Model 2: Shows a strong relationship between the HPO framework and KM.
Equation of the model: 1 KM = 880*HPOF
Model 3: Shows a strong relationship between the KM and high performance.

Equation of the model: 2HP = 0.699*KM
Model 4: HPOF–KM–HP
Equation: HP = 0.657*KM

7.5.6 Step 5: Interpretation and Communication

Finally, the results of the structural model are to be interpreted and communicated. We communicate the interpretation by four paragraphs, indicated by A to D.

A: The HPO framework and high performance

The findings have revealed that there is a direct positive and significant relationship between the HPO framework and high performance (y = .304, p < .05; F = 11.91, p <. 05). It was noted that the relationship is in line with the other models. Based on this finding, we may state that Claim 1 is further supported in agreement with the zero order correlation and the regression results that provided earlier support (see Chapter 6). Based on the SEM results, we confirm Claim 1; consequently, we may state that there is a positive relationship between the HPO framework and high performance in the FIs in Uganda.

B: The HPO framework and knowledge management

The results show a strong positive and significant relationship between KM and the HPO framework (y = 0.880, p <.05). The finding accordingly supports Claim 2, which states that there is a positive relationship between the HPO framework and KM providing further support for Claim 2. Therefore, Claim 2 is accepted. The finding suggests that changes in the HPO factor are positively associated with KM. Moreover, the research model in Figure 7.4 reveals that a substantial amount of 77% (R^2 = .774, p < .05; F = 82.33, p <. 05) of variance in the HPO framework is explained by KM, suggesting a good model fit (cf. Hair et al., 2011). This implies that when an institution applies the HPO factors, this might lead to improvements in the KM processes; for instance, the knowledge acquired and responded to. The results indicate that among the HPO factors, management quality (.503) has the greatest impact on the KM and high performance. The variance explained by the predictor is quite high for us to believe that the HPO framework and knowledge management are good predictors of performance in Uganda FIs.

C: Knowledge management and High performance

The findings further reveal that there is a strong positive and significant relationship between KM and high performance (y = .699, p < .05). The finding suggests that effective management of knowledge is associated with high performance in the FIs. This finding shows confirmatory support for Claim 3: Knowledge management is positively related to high performance. Claim 3 is therefore accepted. It is in agreement with Thomson (2010) and Andreeva and Kianto (2012) who suggest that managers can focus on KM to improve

the performance of their organisation. According to the research model in Figure 7.4 KM and high performance explain 49% ($R^2 = 0.488$, $F = 22.87$, $p < .05$) of the variance (explained in high performance by KM), suggesting a good model fit. Additionally, the factor which contributes most to high performance is knowledge responsiveness (.683). This is in support of Pillania (2008)'s findings in India that KM leads to high performance.

D: The HPO framework, KM, and high performance

The results show that there is a significant strong mediating effect. It is realised in the structural model, as shown by the linear relationship between the HPO framework, KM, and high performance (cf. Henseler et al., 2009). The finding reveals confirmatory support for Claim 4 which states that: There is a significant mediation effect of KM in the relationship between the HPO framework and high performance.

The results of the structural model based on the path coefficients, t-statistics, and the variance are summarised in Table 7.9. They are related to our four claims.

Table 7.9 Summary of the results based on path coefficients for the UFI model.

Claim	Independent variable	Dependent variable	Path coefficient	t-statistics	Claim supported?
C1	HPO framework	High performance	0.304	0.987	Yes
C2	HPO framework	Knowledge management	0.880	9.073	Yes
C3	Knowledge management	High performance	0.699	4.782	Yes
C4	HPO framework and KM,	High performance	0.657		Yes

Source: Primary data. *** Path coefficient significant at 0.001 levels

7.6 Chapter Conclusions

In this section we provide the chapter conclusions in 7.6.1, the answer to RQ 6 are given in 7.6.2, and the answer to RQ7 in 7.6.3.

7.6.1 Conclusions

In this chapter, the correlation tests for the relationships between the criteria and the predictor variables have been carried out. We performed many correlation tests to establish the relationships between the HPO framework and KM.

Furthermore, we examined the influence of KM on the HPO framework and high performance variables in the FIs. The results are as follows.

(1) The HPO framework has a direct positive influence on high performance.
(2) The HPO framework had a significant influence on KM.
(3) KM had a significant influence on high performance.
(4) KM has a significant mediating effect on the HPO framework and high performance in the FIs in Uganda.

Based on these four results we present four conclusions.

(1) We observe the following. Hierarchical regression was carried out to establish the predictive power of the variables in the model. The results indicated that KM had the highest predictive power in the model, followed by the HPO framework. The demographic factors had an insignificant contribution in the final model. From the observation we may conclude (**conclusion 1**) that *the overall model prediction of high performance is significant*.

(2) We observe the following. The results from SEM and the confirmatory factor analysis revealed a significant and good model fit. On the basis of the results from the measurement model the relationship of the variables were all significant. The significant relationships in the model are: (1) The HPO framework has a direct positive relationship with high performance (2) The HPO framework has a positive, strong, and significant relationship with KM, (3) KM has a positive significant relationship with high performance in FIs in Uganda, and (4) there is a positive significant relationship between the HPO framework, KM and high performance. From these observations we may conclude (**conclusion 2**) that *KM mediates the relationship between the HPO framework and high performance*.

(3) We observe the following. The structural model reveals that all the relationships that we had predicted were significant. These included the following: (1) there is a direct significant relationship between the HPO framework and high performance, and (2) there is a direct effect of KM and the HPO framework on high performance. From these observations we may conclude (**conclusion 3**) that *KM mediates the relationship between the HPO framework and high performance*. Besides, the combination of KM and the HPO framework has proved to have a significant effect in influencing high performance in FIs in Uganda.

(4) We observe the following. Our results fitted into the UFI model for HPO indicating that: (1) there is a strong linear relationship between the HPO framework, KM, and high performance in FIs, (2) That KM has the highest influence in the model, (3) there is also a strong positive relationship between the HPO factors and the KM processes, (4) there is a good positive relationship between the HPO factors and high performance, (5) the HPO framework can also predict high performance through KM, (5) the findings of this study seem to suggest that KM appears to be significantly related to high performance, and (6) The implication that the HPO framework is important through effective knowledge management. Based on the

observations and considerations above we may conclude (**conclusion 4**) that *the UFI model for HPO in Uganda requires more than only the HPO framework to attain and sustain HPO*.

7.6.2 Answer to RQ 6

Below we answer *RQ6: What is the relationship between KM and high performance in FIs in Uganda?*

From the Tables 7.2 and 7.3 we see that there is a positive relationship between the HPO framework and KM. The results indicate that there is a positive strong relationship between KM and high performance in FIs in Uganda. In our findings we note positive reactions towards KM as a requirement for performance improvement from our sample during the interview process. To a large extent KM strategies were suggested by the respondents as a possibility that may help the FIs improve their performance.

7.6.3 Answer to RQ 7

Below we answer *RQ7: Does KM influence the relationship between the HPO framework and high performance in FIs in Uganda, and if so in what manner?*

Table 7.10 Key findings

#	Objective	Claim	Key Finding
1	To establish the extent to which the existing theories are applicable to understand KM and high performance in FIs in Uganda.		
2	To establish the existing levels of performance in FIs in Uganda.		
3	To establish the existing KM practices in FIs in Uganda.		
4	To establish the relationship between the HPO framework and high performance in FIs in Uganda.	*C1: There is a positive relationship between the HPO framework and high performance.*	-Changes in the HPO framework are positively associated with changes in high performance.
5	To establish the relationship between the HPO framework and KM in FIs in Uganda.	*C2: There is a positive relationship between the HPO framework and knowledge management*	-Changes in the HPO framework are positively associated with changes in KM
6	To establish the relationship between KM and high performance in FIs in Uganda.	*C3: There is a positive relationship between KM and high performance*	-Changes in KM are positively associated with changes in performance.
7	To determine the influence of KM on the HPO framework and high performance.	*C4: There is a significant mediation effect of KM in the relationship between the HPO framework and high performance.*	-There is a full mediation effect of KM in the relationship between the HPO framework and high performance.

From Figure 7.1 and 7.4 we see that there is a significant mediating effect of KM in the relationship between the HPO framework and high performance. This implies that variations in the HPO framework affect variations in the KM processes, which subsequently cause changes (potentially in all variables and items) in high performance.

To design a Uganda financial institutions (UFI) model for HPO, i.e., a model that can be used to support the FIs in Uganda to reach the HPO level. In Table 7.10 we present the four key findings that are related to the seven research questions (see section 1.6) and the four claims (see section 3.3).

The key findings of this study provide the basis for the discussion in chapter eight upon which we draw conclusions and recommendations in chapter nine.

CHAPTER EIGHT

The Path to the UFI Model for HPO: Discussion of Findings

8.0 The Path to the UFI Model for HPO: Discussion of Findings

This chapter discusses the results obtained by our study in relation to both the theoretical framework and the empirical findings. The discussion takes place in the context of the relevant literature with a view on the chapter conclusions and on the recommendations of Chapter 6 and 7. We aim at presenting the path towards the UFI model for HPO.

The discussion is based on the findings presented in Chapter 6 and 7. The chapter consists of eight sections. In section 8.1 we discuss the state of performance of FIs in Uganda. In section 8.2 we focus on the KM practices in Uganda's FIs. In section 8.3 we discuss the HPO framework and high performance. Section 8.4 focusses on the HPO framework and KM. In section 8.5 knowledge management and high performance are discussed. In section 8.6 we discuss the influence of KM on the HPO framework and high performance. In section 8.7 we discuss the path to the UFI model for HPO. In section 8.8 we present the modified path to the UFI model for HPO. In section 8.9 we provide the chapter conclusions.

8.1 The State of Performance in Uganda FIs

In this section we discuss our findings on the state of performance of the FIs in Uganda. The study identified the factors that are considered important in describing high performance as a sign of output in Uganda's FIs. It was believed to be essential for us to identify HPO characteristics that can be investigated further and can possibly be confirmed to be components or measures of high performance so as to be used by researchers and policy makers. We used means, principal component analysis (PCA), and confirmatory factor analysis to examine the state of high performance in Uganda FIs. We the discuss the findings with reference to the extant literature and theory. The discussion is made with a main reference to the quantitative findings though we makes some illustrations using qualitative findings for phenomenological purposes. The discussion is based on the objectives and claims of the study**.**

The study established existence of high performance (mean = 7.01), that was composed of financial performance (mean = 5.51), non-financial (mean = 7.57), and competitive advantage (mean = 7.94) (see Table 6.12). The financial component had as its highest item "compared with the industry average, we are more profitable" with a mean value of 6.84, while the lowest item was "our market share is the highest in the industry." It has a mean value of 5.27. The non-financial component has as highest mean score for item "our organisation is result oriented" with the mean value of 8.70, while the lowest item was "we have superior capabilities and execution of duty" with the mean value of 6.89. The component competitive advantage had as its highest item "we serve our customers in a short time" with the mean value of 8.25, while the lowest item was "we can succeed in service delivery amidst resource constraints" with the mean value of 7.70, (See Table 6.8).

The study through PCA established that high performance in Uganda FIs is composed of financial performance that accounted for the greatest variance explained (44%) it was followed by the non-financial component which accounted for (14.1%), and competitive advantage which accounted for (7.3%). The study found out that these factors accounted for (65.4%) of total variance explained in high performance and that these factors are constructs of high performance (see Table 6.5).

The PCA results provided evidence for financial performance. The key attributes of financial performance established by the findings are basically five; the portfolio in the industry, the market share, the firm's outreach in the industry, the financial returns compared to other firm, industry, and the profitability compared to the industry average. The non-financial performance component had the key attributes established by the findings as five: the frontline employees consistently executes well on activities that are critical to success in the FIs, they have high–performing people in the jobs where they can have the most impact, the employees have superior capabilities and execution of duty, they have a high performance culture, and over the past five years, the FIs met their performance objectives. The FIs achieve most of their set targets and are result oriented. Competitive advantage issues that accounted for high performance were basically in three areas: competing in service delivery amidst resource constraints, serving customers in a short time, and ensuring that the customers can easily access our services.

In other words, the employees' perception about the non-financial component was positive than their perception about financial component and competitive advantage. The results show that most of the respondents have a good opinion of the variable high performance (the average mean is 7.1 from 15 items). Therefore, we may conclude that the items measured high performance successfully, although the mean values can be improved

The confirmatory factor analysis gave the weight loadings for the variable financial performance (w = 0.419), the non-financial performance (w = 0.310), and competitive advantage (w = .210) respectively (see subsection 7.5.5). Although it is generally, believed that three most essential evaluation indicators for banking performance are profitability, productivity, and the market share (cf. Triguero, 2012), we found that in addition to this conviction a study by Hung-Yi and Wu, (2011) suggests other indicators such as customer satisfaction, sales performance, and customer retention rate. Our study is in agreement with the studies mentioned earlier (Kaliprasad, 2006; Lawler, 2007; Waal, 2012) (see section 2.6) and established that the indicators can be grouped into financial, non-financial, and competitive advantage. Therefore, we may state that financial, non-financial, and competitive advantage factors constitute high performance. We discuss them below.

Financial measures

The findings indicate that high performance is largely explained by the financial measures of performance. We discuss the five characteristics associated with the first high performance measures: "financial performance." The measures include; The FIs portfolio, the market share, the institutions' outreach, the financial returns, and the profitability in the industry.

The results established that FIs portfolio have a combination of services which include; regular banking, different types of credit, mobile money, mobile banking. Several new products are on the Ugandan market and there is likelihood that more will be introduced in future. The quotations from the interviews below provide evidence to this.

"We are number one in terms of quality and in portfolio volumes. We also have the portfolio quality which continues to grow every month. The rate at which we are growing is very high within the industry." "...we get good people with experience from other banks; we give them good jobs and of course these people always come with their customers. This is has been our strategy to increase our loan portfolio."

For the market share, we established that there are three FIs: C19, C6, and C8 that are monopolising the market, with C19 having the largest market share, C19 has 91 branches. The remaining three quarters of the market is shared among the rest of the FIs. We noted that the finance sector is relatively concentrated since there are many registered FIs serving a limited number of customers in terms of market share of assets; the number of the bankable population is estimated to be 4 million Ugandans. The quotation from the interviews below provides evidence to this.

"At least we have 70% market share but if we are to be given one year, we shall be somewhere, since we are penetrating the market through opening up various branches."

The findings indicate that the FIs target different customers' service and the industrial behaviour of their market. For example C19 takes the services to the people, by having branches all over the country, and C7 which has one operational centre concentrates on the corporate environment which looks for its services, (see Table 5.4).

We considered outreach in terms of branches that FIs have in an endeavour to provide financial services to Ugandan (i.e., bringing services nearer to the people). The findings indicate that there has been an increase in the number of branches as an indicator of industry outreach. FIs in Uganda have experienced changes and a notable growth, viz. an increase in the number of commercial banks from 15 in 2006 to 23 in 2011. The findings indicate that generally, there has been an increase in the number of service branches for all FIs from 301 in 2006 to 455 in 2011. However, the branches are mainly based in Kampala

and the surrounding districts of Wakiso and Mukono. The quotation from the interviews below provides evidence to this.

"The market itself is very good because within the twenty five years we have been in operation, we have been able to open up 24 branches, with new ones yet to be opened."

The financial returns; compared to other firm industry the FIs are financial intermediary and their liabilities are money. People can pay for transactions by writing checks or withdraw up to the full amount of their account balances. The liabilities of the banks are therefore equal to these checkable deposits. The asset quality of the commercial banks has continued to improve compared to the MDIs. However, there are some FIs which have improved on their financial returns. This has been achieved through the evolution and promotion of small business enterprises. The quotation from the interviews below provides evidence to this.

"The financial performance has been good and that is why we have been admitted to become a bank and it is because of the financial credibility." The financial performance is not bad because we have been solvent."

We noted that the way forward for the FIs in is to reorganise and remobilise clients through the provision of high value economic services which grant reasonable convenience to clients. This strategy is hoped to increase bank deposits, which are the sources of bank profitability. Similarly, the bank's earnings on assets consequently dropped due to the impact of compressed margins. This is an indication that the FIs are incurring high costs of maintaining unprofitable branches because of the small bankable population.

The results established that the profitability of the FIs compared to the industry average as provided by BoU for FIs in Uganda is 14% in 2014. The results established that there was an increase in the net profit margin for all FIs for the years 2011-2013. FIs in Uganda continue to register robust growth in terms of profitability despite the high inflationary environment. The quotations from the interviews below provide evidence to this.

"We are making profits and we are on top because we have a good clientele base, diversity of products, and we have a wider coverage (the branches)." We have the industrial average below 5% which is some good achievement because even the industry people tend to think that 3% is not achievable but we have been able to do it."

"…and may be the other thing is about profitability; we have been able to register profits every financial year for the last 3 years which is an indicator of good performance."

This level of performance can be explained as follows. FIs need a financial input to mobilise domestic savings that are essential for facilitating efficient investment (cf. Beck and Hesse, 2009). FIs, in particular local banks, provide benefits to the domestic economies. This point of view is consistent with Morawczynski et al. (2009) who argue that customers use financial services that they find convenient, reliable and affordable. In addition, literature suggests that successful HPOs should be measured according to a consistent set of rules that describe the chain between people and profit (cf. Jamrog, 2012), where people contribute to the profits that the organisation makes. From the same discussion, we may conclude that financial performance is more predominant than non-financial high performance in FIs.

Non-financial measures

According to our results, non-financial performance measures pray a role in the performance of FIs in Uganda. The findings established that the non-financial performance measures that contribute to improving performance in the FIs include: The frontline employees, high–performing people in the jobs, employees with superior capabilities, setting performance objectives, and having a high performance culture. The study discusses the five characteristics associated with the non-financial measures.

The *first* characteristic was; frontline employees consistently perform well on activities that are critical to success in the FIs since they are recruited specifically to handle such operation areas e.g., customer care officers and the bank tellers. The managers ensure that they recruit good people with experience from other banks who improve on the performance by persuading the customers they had in their former employment to shift their accounts to the new bank. This was further confirmed by the results from the interviews in the following excerpt.

"We believe in giving opportunities and advantages to our employees, on the basis of their ability."

"*The strategy is to recruit people who are already in the field and people who have been in good organisation and are experienced; we target the products they are offering."*

The *second* characteristic was; having a high–performing people in the jobs; the findings indicate that the FIs in Uganda have high–performing people in the jobs where they can have the most impact in improving performance. The FIs try much as possible to place people in the right places especially where they have the right competences and where the gaps are identified. The quotation from the interviews below gives evidence to this.

"The positions are reserved and allocated to people specialised in some areas beneficial for the banks. An example is research, so they come out with ideas that would result into activities and products, to improve on the banks performance."

The above quotations seem to highlight the fact that there exists a selection processes for competent employees in FIs as a strategy to recruit knowledgeable staff.

The *third* characteristic was; employees in FIs have superior capabilities and execution of duty, this was further emphasised by the managers in the interviews that the managers know the unique core competencies of their organisations. The capabilities of the employees are, mastered, developed, and renewed regularly. The FI managers stick to what the company does best, keep core competencies inside the organisation, and outsource non-core competencies. The quotations from the interviews below give evidence to this.

"We address human resource issues, concerns, and attitude regularly because they are dynamic and different depending on the individuals." "...We train people to ensure that they are given more knowledge and may be even more skills to develop them better. ...when it comes to promotion, we advertise internally before advertising externally. The assumption is that when you get someone internally, you know his competences better; you know where he can fit best, and where he can be developed."

During the interviews with some of the managers of the FIs, it was observed that human resources are one of the most important resources. As pointed out in the work by Martos et al. (2009), the essence of KM lies in human resources because they are the custodians of knowledge. The observations are consistent with the conclusions by Arevuo (2004), Huselid and Becker (2011), and Hislop (2013) who contend that the workforce is critical to the success of business because business is a source of other KM practices. The KM practices in FIs in Uganda are, therefore, not a surprise.

The *fourth* characteristic was that*;* FIs have a high performance culture, and over the past five years, the findings indicate that there are efforts in FIs to improve performance. These range from reviewing performance on the monthly basis unlike the former way where they were reviewed either quarterly or semi–annually. The quotation from the interviews below gives further evidence to this.

"We have adopted a balance score card kind of performance management tool where we try to make everybody accountable for their performance. So we put it down and cascade it right from the target level, to the operational level and to the individual and even this objective for the organisation; what can you do for the organisation; what is your contribution and how can it be measured".

The *fifth* characteristic was that; FIs meet their performance objectives by keeping the indicators simple and based on a limited number of critical success factors and key performance indicators and by making sure that strategic plans and budgets are only made for these measures. This has resulted into the FIs achieving most of their set targets therefore; we may conclude that they are result oriented. The quotation from the interviews below gives evidence to this.

"The bank generally is making effort to achieve the financial objectives which are: e.g., growing deposits and lending to more customer outside Kampala. Our goal really was to be a bank of the unbanked. That has changed and currently our goal to is to serve the corporate."

The non-financial measures such as the perception that employees and managers have on the performance of their organisations need to be used to come to constructive conclusions that may help an organisation to improve performance. The non-financial measures could be enhanced further by the effective utilisation of Waal 2010's the HPO framework strategies that can improve non-financial performance.

Competitive advantage

The findings indicate that there is a level of organisational competitiveness in the FIs in Uganda. This may imply that they appear to have some ability to provide services in a rather competent and efficient way. The findings further established that the competitive advantage characteristics that contribute to improving performance in the FIs include; competing in service delivery amidst resource constraints, serving customers in a short time, and ensuring that the customers can easily access our services.

The *first* characteristic was that; FIs in Uganda are competing in service delivery amidst resource constraints; we established that most of the FIs are limited in terms of competencies and resources to sustain their operations. The FIs are diversifying their services with new products such as corporate banking, mobile banking, and e-cash to meet the demands of the customers. The quotation from the interviews below gives further evidence to this.

"*To improve our customer care we are using the acquired knowledge to try to improve on skills and improve our sector; by learning what other banks are charging and we try to look for good customers. We also advise our customers on the best options to take."*

"Yes, we started with customer awareness through promotions of our products. In so doing customers will have to know that the bank exists and people will start seeking for our services and at the end of the day we shall increase on customer base."

This finding was in agreement with Van Stam (2013) findings who established that in the African settings, most communications homeostatically deal with 'the present'. They are highly efficient and relevant for purpose in everyday life in resource-limited environments.

The *second* characteristic the study established was that the FIs in Uganda serve the customers in a short time, and this has resulted into an increase in the customer base. Serving the customers in the shortest time possible has also been enhanced by information technology (IT) innovations. In Uganda, banks are embracing IT to offer innovative financial products such as mobile money, as well as improve the efficiency of their operations. The quotation from the interviews below gives evidence to this.

"*Today, IT innovations have influenced our ways of living in many fields including the finance industry and we have all benefitted from the new technologies". The evolution of technology has led to innovation of varied banking products including the VISA, MasterCard, online Banking, Mobile Money and E-commerce; thus facilitating modern banking. Ours is a bank that thrives on technology and innovation."*

The *third* characteristic was that; FIs ensure that the customers can easily access our services. The FIs ensure that customers can access their services taking their services to the people in the form of opening new branches and by diversifying their products. The quotations from the interviews below give further evidence to this.

"*Of recent we are creating products that are user friendly to our customers. Before we used to be so rigid everyone used to know us as a "Whiteman's" bank but of late we have tried to reach out to the lowest person by creating products that suit them."*

"We have different products such as; individual lending, we have salary, we have the village growth and of recent we have introduced the group loans of five people and so on. We have a diversity of products and the branches have also increased so we have a wider coverage."

The competition is a natural business force which cannot easily be avoided, since organisations continue to meet challenges related to their products, processes, procedures and work method. Although literature contends that; what gives an organisation a competitive edge is (a) what it knows, (2) how it uses what it knows, and (c) how fast it can know something new (Prusak, 1996). Our findings established that most of the FIs are limited in terms of competencies and resources to sustain their operations. They are also limited in how they use what they know (the capabilities) to serve their customers. This may be attributed the financial services sector in developing countries is facing tough competition because of globalisation.

The finding is in agreement with, Huang et al. (2010), who established that FIs since 2009 financial crisis have been trying to find ways to survive and compete. Uganda's FIs have not been an exception, with many of them undergoing major changes such as privatization, mergers, acquisitions, and closures (Kamukama et al., 2011). The demand for the use of FIs remains sluggish with a good number being threatened with closure due to dormant accounts and failure to attract effective usage by Ugandan (UBOS 2014). A possible solution could be to strive for HPO because, research shows that HPOs successfully make and implement well decisions (cf. Rogers and Blenko, 2006; Adreeva and Kianto, 2012). This indicates that good strategic decisions and their effective implementation provide a competitive advantage that directly leads to superior organisational performance.

From the foregoing discussion on the state of high performance in the FIs in Uganda, the results indicated that the FIs in Uganda are more inclined to financial measures of performance, than to non-financial performance, and competitive advantage. We may conclude that financial, non-financial, and competitive advantages are outcome attributes of high performance.

8.2 The KM practices in Uganda's Financial Institutions

In this section we discuss the status of KM practices in FIs in Uganda based on the findings from Survey 3 of our study. We identify the processes that are considered important in KM as input in Uganda's FIs. Moreover, we use (1) the means, (2) principal component analysis (PCA), and (3) confirmatory factor analysis to examine the KM practices in Uganda FIs. We the discuss the findings with reference to the extant literature and theory. The discussion is made with a main reference to the quantitative findings though we makes some illustrations using qualitative findings for phenomenological purposes. The discussion is based on the objectives and claims of the study**.**

The study established a moderate existence of KM (mean = 7.85), that was composed of knowledge acquisition (mean = 8.15), knowledge dissemination (mean = 7.62), and knowledge responsiveness (mean = 7.78) (see Table 7.2). The results further show that knowledge responsiveness, dissemination, and acquisition had means scores of slightly more than 7.0. In the case of the component KR, the item, "we update our knowledge databases," had the highest mean value of 7.84. The item that had the lowest assessment by the respondents is item (7.18), "we respond to questions on technology." This could be attributed to the low levels of technology in FIs. For the component KD, item "knowledgeable staff share their ideas with other staff" had the highest mean value of 8.29 and the item, "we have a well-developed human resource function" had the lowest mean value of 7.94. A possible explanation could be that most of the FIs do not have a fully-fledged HR function. Regarding the component KA, the item "we are market focussed by actively obtaining customer information" had the highest mean value of 8.73 and item "our organisation is

sensitive to information about changes in the market place" had the lowest mean value of 8.27. All the items show an acceptable level of employee satisfaction of the existence of KM in the FI in Uganda. (See subsection 6.4.2 and Table 6.7).

The study through PCA established that knowledge responsiveness accounted for the greatest variance explained (45%), followed by knowledge dissemination which accounted for (10%), and knowledge acquisition (8%). The study found out that these factors accounted for 63% total variance explained in KM and that these factors were considered as constructs of KM. Knowledge responsiveness (KR) had five measures in FIs in Uganda; the FIs are flexible by readily changing products and changing strategies, they are flexible and opportunistic, the FIs respond to questions on technology, and update our knowledge databases. In the same vein PCA results on knowledge dissemination established that FIs in Uganda basically disseminate knowledge in four ways: they conduct regular meetings to exchange experiences, knowledgeable staff sharing their ideas with other staff, by having a well-developed human resource function; this was an additional loading which we re-examined and declared to be conceptually fit for knowledge dissemination because the HR function in an organisation basically handles all the KM processes and also knowledge is disseminated on the job. The PCA results for the component knowledge acquisition established that FIs in Uganda acquire knowledge in three ways; by focussing actively on obtaining customer information, being sensitive to information about changes in the market place, and FIs have well-developed financial reporting systems. In the same vein the PCA results provided some evidence for KM (see Table 6.4).

The confirmatory factor analysis indicated the following weight loadings for the knowledge acquisition (w = 0.296), knowledge dissemination (w = 0.624), and knowledge responsiveness (w = 0.683) respectively (see subsection 7.5, Table 7.8). Therefore, we may state that knowledge acquisition, knowledge dissemination, and knowledge responsibility factors constitute knowledge management. We discuss them below.

The PCA results for the component knowledge acquisition established that FIs in Uganda acquire knowledge in three ways. We discuss the three characteristics associated with the first KM component: "Knowledge acquisition." The measures include; focussing actively on obtaining information from the customer, being sensitive to information about changes in the market place, and having a well-developed financial reporting systems.

The *first c*haracteristic was by focussing actively on obtaining information from the customer. The FIs are operating in a competitive environment which dictates that they must get feedback on their services from the customer. The information obtained from the customers in form of compliments, complaints, and requests has helped the FIs to improve

their services and remain on top of competition. The quotations from the interviews below provide evidence to this.

"We have also increased our customer base and you can easily realise it from the market as people now know the bank. We have put up branches in areas no one ever expected. We tried at least to go down and increase output."

Then we also have what we call the international forum of finance being an international organisation and here there is an exchange of ideas between the different affiliates. We acquire knowledge through seminars, workshops, and we also maintain a training library which is our source of stored knowledge

The findings established that FIs are sensitive to information about changes in the market place, they employ market researchers to move around the country studying the market trends and act accordingly.This was in agreement with Shu-Hsien et al. (2009) Rapid changes in business environment have shortened the cycle of core competitiveness and there is essentially no longer any long-term competitiveness. Therefore, businesses should maintain their competitive advantage by understanding the market conditions, innovating knowledge, and promoting innovation.

The *third* characteristic was; FIs have well-developed financial reporting systems. All FIs acquire knowledge from the financial reporting systems. The two quotations from two distinct interviews below give evidence to this.

"Yes, KM has been there because we started with customer awareness about the bank. We started giving promotions; we participate in giving lending's in every district. In so doing customers will have to know that the bank exists and after that people will start enrolling and at the end of the day we shall increase on customer base."

Yes knowledge has contributed to our performance in term of customer awareness and product development. We have recently launched the premium product which caters for the top most guys and other several products that have been developed to meet customer needs.

Although literature has established that among the KM processes knowledge acquisition is one of the foundational processes in improving performance, the findings indicated that knowledge acquisition is weak in FIs. We note that the barriers to successful knowledge acquisition include (a) lack of effective management skills, (b) the shortage of specialised employees in the area of banking, and (c) labour turn over. This situation has consequently weakened KM practices and thus the knowledge base in the FIs. The majority of managers

interviewed observed that the competences possessed by employees in FIs do not match the specialised nature of the operations in FIs. The respondents further revealed that the biggest constraint facing FIs was finding and retaining knowledge workers with a high experience. The two quotations from two distinct interviews below give evidence to this.

"*Nevertheless we have a belief that anybody who is well trained can be a good employee; the big issue is that we don't wish to wait for that time. We want cream people, we always want those who have been found to know what is happening because if you are to train someone let's say for five months, you go to the market you find that person has been identified by another employer who is in another bank..* "

"I think the positions should be reserved and allocated to people specialised in some areas beneficial for the banks. An example is research, so they come out with ideas that would result into activities and products, to improve on the banks performance".

From the above assessment, along with the results in Table 7.2, it is clear that some of the employees in FIs are highly qualified; but their competencies are not equivalent to the specific tasks or operations of the FIs. The above findings concur with the observations by Kamukama (2011) in his study on the MDIs in Uganda, the observed that the majority of respondents were highly qualified; however, the competences possessed by employees in MDIs still do not match the specialised nature of the work. Although this finding was in the MDIs, only our results indicate that the majority of FIs' staff possesses qualifications and competencies that are not appropriate for the job. The FIs show global trends in reducing the number of employees, but the productivity levels still need to be increased. As the bank's business grows, there are concerns on workload across departments and branches. Despite the fact that the staff engages in activities of similar nature, some staff members are overburdened compared to others. It has also been noted that staff who are not involved in bank operations lack training in the bank's business. Our findings suggest that all staff members working in FIs should have a basic training as this belongs to the core business regardless of the specialised functions. Training adds value in the form of understanding (a) the bank operations and (b) how specialised roles fit within the institution; as a result it improves KM processes, reporting, and performance.

The component of KM knowledge dissemination (KD) had the following measures from the PCA analysis; conducting meetings to exchange experience, knowledgeable staff sharing their ideas with other staff, having a well-developed human resource function, and also knowledge is disseminated on the job. We discuss the four characteristics associated with "Knowledge disseminate."

The *first characteristic* was that; FIs conduct meeting to disseminate knowledge for their operations. The findings indicate that meetings are a key practice in the operations of FIs because they regularly conduct meetings to exchange experience. This was one item that stood out in the way knowledge is disseminated in FIs. The quotation from the interviews below gives evidence to this.

"There is also the day to day sharing of knowledge where in each branch, the branch team holds meetings and in these meetings, people make presentations to clarify on certain issues and give information to others."

"We have communication which is two way, i.e., from top to bottom and from bottom to top. We have meetings, we have trainings and we have an intranet which is a very good exchange of information for employees."

The finding was in agreement with the findings by Bagire et al. (2015) where they established that Uganda's selected organisations use meeting as a decision-making process. According to Bagire, et al. (2015) Organisational meetings derive from policy as a principle for effective management. They provide a platform at which key decisions are made and the strategic direction of organisations is determined. Meetings bring together managers to plan, evaluate and share feedback. Management scholars in Africa have recently raised concerns whether models from the west apply locally.

Management is about unison of action and through common goals, aggregation of resources to make them productive in a defined system (Lituchy et al., 2013). Zoogah and Nkomo (2013) noted that the poor research in Africa has undermined the region's ability to develop management models that are appropriate to the local contexts. This is emphasized by Kiggundu (2013) that management knowledge is associated with powerful policy and practices; for example tenets of Ubuntu in Africa like generosity, charisma, humanism, hospitality, self-enrichment, motivational leadership, tolerance, consideration, integration, persuasiveness, representation and role assumption can be used to explain the management of organisations. While our key findings have agreed with previous studies, we emphasize that Africa's unique context is important in understanding the behavior of some factors.

The findings further indicated that FIs use knowledgeable staff to share their ideas with other staff. The findings indicate that the knowledgeable employees at the ranks of managers and supervisors share the knowledge about bank operations with their colleagues through the mentorship programmes. The quotations from the interviews below provide evidence to this.

"One way is maybe through recruitment because I think the staffs are the big knowledge resource and we need to recruit staffs who are knowledgeable, to a acquire knowledge."

"Yeah, if someone is recruited, normally he has to be attached to a mentor. It is a practice that is ongoing and we assign a mentor on every job and the mentor has to give a report monthly on the progress of the new employee." "*We give people time to absorb knowledge and that is given by mentors in business, as they explain how we have been operating."*

"We have different senior managers who actually do the mentoring of younger officers who are recruited to the various positions in the bank, to develop their skills."

The knowledge in FIs it was established is disseminated on the job. Our findings indicate that FIs recruit employees with varied academic backgrounds and train them on the job in the process the dissemination of knowledge is on the job. This is can be illustrated in the current study by the following interview excerpt.

"...the individuals who join (the new ones), are taken through induction where they are given a general scope about the bank activities and specific information and knowledge about their jobs and departments where they are to be based."

"……we recruit people from all professions, different academic disciplines, regardless of what one has specialised in, we do rotate them so that they can get to know the general operations within the institution. For example, one would have come with a degree in agriculture and he is employed in credit but after some time, he can be taken to the back office and he becomes an accountant."

"People are developed into higher positions based on the experience, skills and the knowledge they have acquired from time to time on the-job."

All in all the findings indicated that most of the FIs have a well-developed human resource function. This was an additional loading which we re-examined and declared to be conceptually fit for knowledge dissemination because the HR function in an organisation basically handles all the KM processes and also knowledge is disseminated on the job.

The component knowledge responsiveness was considered as the main process that FIs are utilising. We discuss the five characteristics associated with the third KM component: "Knowledge responsiveness." The measures include the following; FIs are flexible by readily changing products, changing strategies, and opportunistic. The FIs respond to questions on technology, and update their knowledge databases. The findings indicate that FIs are flexible by readily changing products and changing strategies, and they are flexible and

opportunistic in exploring the market. The FIs respond to questions on technology, and update our knowledge databases. This is can be illustrated in the current study by the following interview excerpt.

"*We have different ways in use to manage knowledge resources and have it passed on to all our staff. The moment you join the bank, you are connected to the intranet whereby each one of us can share direct with colleagues on e- mail; the individuals who join (the new ones), are taken through induction where they are given a general scope about the bank activities and specific information and knowledge about their jobs and departments where they are based*."

Our field work (Survey 3) led to six classes of results.

First, there is also a general feeling that (1) there is lack of career progression and (2) there are only a few promotional opportunities within the bank. This level of insecurity has resulted into a considerable labour turnover. Some employees believe that they do not have the opportunity to grow and develop their careers. In addition, employees consider the promotional criteria not clear and transparent. There is also discontent amongst local staff over the employment and remuneration of expatriate staff: (a) in some cases it is felt that local talent could have been sourced to fill some of these positions and (b) in other cases the pay difference between expatriates and locals is seen to be unfair. As a consequence, the staff turnover rate is high and the FIs have consistently lost their competent staff to their competitors in the banking sector.

Second, the findings further indicate that the relationship between employees and employers in FIs is marked as a major driving factor to improvements in performance. This is in agreement with Wiig (2004) and Martos et al. (2009), who observed that human resources are the source of knowledge that can be utilised by an organisation to improve performance The HR directly affects the knowledge acquisition and dissemination practices, and thus the whole process of KM in the FIs (cf. Hafizi and Ahmad, 2006).So, a weak HR will, in turn, weaken other KM processes. This is in compliance with Wiig (2004) and Pillania (2008) who argue that to attain high performance, an institution needs to have valuable and rare resources which are found in HR. Therefore, more of the financial gains in FIs can be attained by maintaining equal associates between employers and employees.

Third, the findings from the interviews also reveal that the most compelling reason for investing in KM was to increase the value of their products to the customers. The FIs are diversifying their services to meet customer demands, with new products such as corporate banking, mobile banking, and e-cash which require employees that are knowledgeable in their operations to be retained within the institutions. Moreover, the FIs are trying to manage

the knowledgeable resources to reduce on the costs incurred by their institutions during the recruitment process. The findings indicated that most of the FIs do not have retention programs that aim at keeping the experienced staff within the organisation. There is need to consolidate and streamline the succession, planning and the executive programmes and to try to retain the best people we have by having a career path plan which they can develop so as to continue to use their skills

The findings revealed that KM is an innovative concept but also one that is fairly understood by the Uganda financial service sector. There is evidence of knowledge growth stages in the FIs that could result into long-term improved performance by becoming more innovative to be able to serve the clients better. This finding was in agreement with Alstete (2007) in his study no knowledge growth stages in organisations. The respondents revealed that they are trying to reach out to their customers by having very many branches countrywide and the promotion of products, e.g., agriculture loan, loans to all government employees; and giving a long term loan repayment to business owners, which has enabled them to grow faster.Through the knowledge dissemination strategy (e.g., Advertising, workshops, and community based activities), FIs get opportunities to explain how they intend to add more value to the Ugandan society.This implies that high investments in KM practice assets increase the firm's level of creativity, innovation, and ability to network with partners in the industry.

Fourth, the findings show that (1) there is no deliberate effort to retain the knowledge resources by most of the FIs and (2) that the employees are not highly motivated to commit themselves to achieve business excellence. This was in agreement with the findings by Ridder and McCandles (2010) and Thomson (2011) who established that (1) employees appear to have different needs, motivation, and reward preferences and (2) can be motivated by non-monetary rewards, creating a need for differences in strategic HRM. This finding is further collaborates the previous researchers in high performance studies such as Blanshard (2006) who emphasises that HPOs may produce outstanding results with the highest level of human satisfaction. This view was further supported by the findings by Kaliprasad (2006) who proposed that HPOs are supposed to be characterised by a nurturing, supportive, and positive work environment for employees. This view was echoed by Thomson (2009), who expanded the concept of HPOs to a high performance culture that is designed to achieve business excellence requiring (1) career resilience and (2) a highly motivated workforce. Thomson (2010) emphasises that leaders should put people on the first place when setting the organisation goals, and (2) inspire their workers to pursue profitability while meeting the expectations of all the stakeholders. Moreover, Allan (2012) established that HPO systems are changing the way we think about people and how work is organised.

Fifth, several managers also stressed the strategic role of knowledge resources, that they have significantly provided distinctive competitive advantage in (1) the employee competences(2) streamlining transactions to increase customer service, and (3) providing a conducive ground for product innovation. This was in agreement with (cf. Sigala and Chalkiti, 2007; Shannak et al., 2012). In this understanding the FIs strategy shows that they aware of that the moral obligation to strive continuously for the best results.

Sixth, the findings show a readiness for a change in the perceptions of managers towards HPOs. This is in agreement with Waal (2012) who suggests that HPOs work (a) simultaneously from the inside-out (applying knowledge of readiness in terms of current supply of human capital versus anticipated demand) and (b) from the outside-in (using knowledge of external factors, including what the market demands). This level of preparedness is also a reflection of the strength of its leaders. HPOs perform better because they are better prepared for a change. Creating a resilient, change-ready organisation is an achievement that even HPOs would like to achieve even after a big struggle. But they succeed far more than other organisations by (1) preparing more purposefully, (2) investing in planning capabilities, (3) instilling agility throughout their leadership and employee ranks, and (4) building and deploying capabilities that make business leaders better people managers.

In conclusion, the six classes of findings provide empirical evidence suggesting that KM is essential in improving performance towards HPO in financial institutions.

8.3 The HPO Framework and High Performance

In this section, we discuss the findings on the influence of the the HPO framework on high performance in FIs in Uganda. Our discussion consists of two subsections: the relationship between the HPO framework and high performance in 8.3.1, the influence of the HPO framework on high performance in 8.3.2.

8.3.1 The relationship between the HPO framework and high performance

The composite of the HPO framework in Table 6.12 shows that there is a positive and significant relationships between the HPO framework and high performance ($r = .677^{**}$, $p < 0.01$) (see Table 6.12). This implies that the effective implementation of the HPO framework is highly associated with high performance in FIs. A significant relationship between the HPO framework and high performance implies that a better implementation of the HPO framework is associated with improved performance in Uganda's FIs. So, the HPO framework is positively related to high performance in FIs. The results further indicate that the relationship is strong, providing support for the findings of (Waal et al., 2009).

8.3.2 The influence of the HPO framework on high performance

We found that the HPO framework had a positive and a significant influence on high performance in FIs. Our finding supports the works by Waal (2012) who argues that applying the HPO framework indeed helps an organisation in many countries to achieve better financial and non-financial results. Not only does the HPO framework help an organisation to pinpoint its current status and to make strong the weak points, but it also provides clear indicators and suggestions for organisations which need to be addressed in order to become a HPO. According to Waal, (2013) the HPO framework is a conceptual, scientifically validated structure that managers can use for deciding on which element to focus on in order to improve organisational performance and make it sustainable.

We note that the HPO framework is not a set of instructions that can be followed blindly. Rather it is a framework that has to be translated by managers to their specific organisational situation in their current time, by designing a specific alternative of the framework fit for their organisation. This may be the best time for the FI managers to be exposed to the HPO framework to help them focus on what performance improvements to concentrate on. This is unlikeable information for bad managers, as the HPO framework does not provide a plan for managers to follow. It is however good news for good managers, as they can input their own experience, expertise and creativity while transforming their organisations into HPOs. Despite the prevalence of literature indicating that high performance is associated with a given organisational model, high performance is not a construct free of value judgement. The assessment of high performance is actually dependent upon the measurement criteria selected and these are in turn derived from the underlying philosophy of management.

8.4 The HPO Framework and Knowledge Management

In this section, we discuss the findings on the influence of the the HPO framework on KM in FIs in Uganda. Our discussion consists of two subsections: the relationship between the HPO framework and KM in 8.4.1, the influence of the HPO framework on KM in 8.4.2.

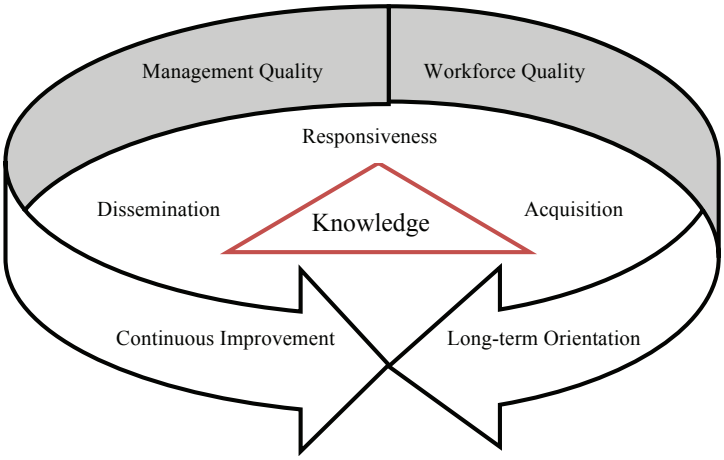
8.4.1 The relationship between the HPO framework and KM

The role of the KM in the relationship between HPO framework and high performance was established earlier (see Chapter 7). Our results indicate a strong and significant relationship between the HPO framework and KM in the FIs (see Table 7.2). The HPO framework factors and KM processes were found to be highly inter-related. The inter-relationship is illustrated in Figure 8. 1.

In Table 7.2 we see that the HPO framework is highly related to the KM processes with responsiveness to knowledge “most highly related” to all the factors of the HPO framework. We established that two of the HPO factors (MQ and CIR) are highly correlated with the

KM processes, specifically with knowledge responsiveness and knowledge dissemination. A possible explanation could be that the FI managers are concentrating on marketing the image of their institutions by responding to customers enquiries and disseminating knowledge. Thus, the more improvement on the dissemination of knowledge in the FIs, the more there will be continuous improvement of (1) the strategy, (2) the core competencies, (3) the alignment, and (4) the simplicity of their operations. However, knowledge acquisition had a quite low correlation with all the HPO factors. This implies that (1) there are low levels of knowledge acquired in the FIs internally and externally, and that (2) this process may be affecting the other processes of KM (KD and KR). The assumed reason is that in the process of knowledge acquisition, organisations acquired new ideas that could help FIs improve their performance.

Figure 8.1 The inter-relationship between the HPO framework and KM.



Our findings are a confirmation of what is hoped for, viz. could have an effect on attaining the HPO status and the successive sustainability. Two factors are fulfilled: (1) KM supports the HPO factors in the FIs in Uganda, and (2) the KM processes are properly managed, planned, and put together within the HPO framework. Almost by definition we would like to state that the application of KM will lead to high performance in FIs in Uganda. The reason is straightforward; each KM process interacts with the HPO factors and influences the HPO factors, creating a whole system that can adequately handle the activities in a given situation. A change to one KM process creates changes in the other processes. Subsequently, the system tends to be in a continuous flux. The managers of the institutions should know how to move their organisations forward, while balancing KM processes and the HPO factors.

8.4.2 The influence of the HPO framework on KM

Our study also tries to establish the influence of the HPO framework on KM. So far, the findings have revealed a positive and significant association between the HPO framework and KM. A closer examination of the regression results of the constructs of the global variable HPO framework on KM shows that WQ explains the greatest variation in the KM, followed by LTO. MQ has the least explanatory power. All four constructs under the HPO framework significantly explain R^2 = .823 (82%) of the variance in the KM (see Table 6.15). However, workforce quality explains the highest variance followed by LTO, then CIR, and management quality explains the least variance in KM. The total explanation was (82%). This implies that the HPO framework is closely associated with KM.

8.5 Kowledge Management and High Performance

In this section, we discuss the findings on the influence of KM on high performance in FIs in Uganda. Our discussion consists of two subsections: the relationship between KM and high performance in 8.5.1, and the influence of KM on high performance in 8.5.2.

8.5.1 Relationship between KM and High performance in Uganda's FIs

We found significant relationships between all the KM processes and high performance in the FIs in Uganda (see section 7.2). Arising from the results, KM and high performance had a strong support. It was established that a strong, positive, and significant relationship exists between knowledge acquisition and high performance in FIs. Knowledge acquisition received weak support. A possible explanation could be that the employees as the internal customers in FIs are limited in the modern facilities of accessing knowledge, especially the IT-related approach to KM. However, the findings indicate that the head offices of all the FIs are well facilitated, unlike their branches.

The correlation between knowledge dissemination and high performance was moderately supported in the FIs. This finding implies that the more knowledge is disseminated in the FIs the higher the performance will be. The idea is that effective dissemination of knowledge among employees may promote new business ideas, and mutual trust, which all influence high performance. A possible explanation for the moderate support could be that the FIs are limited in disseminating information or that they withhold knowledge deliberately from the stakeholders. Finally, results indicate positive and significant relationship between knowledge responsiveness and high performance in FIs. This brings us to our conclusion.

The interdependency of KM processes and the high performance was earlier established by Pillania (2008). It was observed that high performance relies on some of the skills of knowledge workers, such as the ability to communicate, the willingness to share information, and to allow it to be integrated in the organisation. It is also in agreement with Wang (2004)

who established that the level of KM and its application were shown to have an impact on bank performance in commercial banks in Taiwan. This finding is further supported by Kridan and Goulding (2006) and Nemati et al. (2013) who posit that increased knowledge and the abilities of employees can be translated into increased production and firm performance. The conclusions by Darroch (2005) and Ali and Ahmad (2006) are supportive for our conclusions, based on the results of Survey 3, that the three KM processes are inter-related and operate in a collaborative way to form a strong knowledge base which influences the FI's performance.

8.5.2 The Influence of the KM processes on High performance

Knowledge acquisition had the lowest influence on high performance in FIs in Uganda. The findings are contrary to the findings of other researchers such as Pillania (2008), who established that new ideas need to be acquired to improve the organisation performance. This is true because individuals with a higher quality of skills, knowledge, and experience are capable of influencing positive results. This is in agreement with Wu (2008) who established that members of the organisation which receive more accurate information, are likely to become more sensitive to clients' needs, respond more rapidly to their demands, and meet their requirements more satisfactorily. Further, the finding by Nguyen and Mohamed (2011) indicated that knowledge acquisition is central in influencing the financial gaps between different institutions in small-to-medium sized enterprises (SMEs) operating in Australia.

A possible explanation could be that the knowledge acquisition strategies that call for the availability of resources, computer technologies, information, and infrastructure during a perturbation may also not be very well developed in these FIs. Nemani (2010) in his study on the role of computer technologies in knowledge acquisition established that there is a connection between the computer technologies and their role in knowledge acquisition, in an organisational setting. Therefore, a possible explanation for low levels of knowledge acquired in FIs may be attributed to the level of the use of IT that is not yet wide spread among the FIs. There is need to pay attention to knowledge acquisition in order to improve the performance of FIs in Uganda to HPOs. From these considerations and opinions, we may conclude that the HPO creates a mind-set of continuous learning and ongoing development. They are both critical enablers of individual agility and resilience. Goal-setting for the upcoming time frame ensures that individual goals change and adapt to major shifts in the business environment.

Knowledge dissemination had minimal influence on high performance in the FIs. This finding is in agreement with what other scholars found out. McNeish and Mann (2010) reviewed knowledge dissemination situations within organisations. They concluded that the knowledge dissemination has a path through knowledge transfer to consequences including improved group performance, business decisions, competitive advantage, and

financial success. Effective KM practices and programmes rely to a large extent on the ability and willingness of employees to share knowledge appropriately and freely in an organisation (see Nemani, 2010). Yet, there are contrary findings, for example, Seba and Rowley's (2010) study found that most employees in the public sector consider knowledge dissemination to lead to loss of power. This belief makes it difficult for them to promote knowledge dissemination amongst staff. Knowledge dissemination is part of the KM system of an organisation and the operational objective of KM is to ensure that the right knowledge is available to the right processors at the right time for performing their knowledge activities (cf. Manuel, 2008). Here, we may conclude that our study results are not too distant from previous studies conducted in different environments (see, e.g., Wijk et al., 2008; Zhining Wang et al., 2014). All in all, we believe that there is need to make individuals feel obliged to disseminate knowledge to those who need it in order to increase the performance of the organisation.

Among the KM processes, knowledge responsiveness had the strongest *support* in the FIs and the highest *influence* on high performance. Knowledge responsiveness had also the highest *impact* on employee's satisfaction to high performance in FIs (see Table 7.3). The finding is in agreement with Oppong (2005) who confirms that the sharing and re-use of knowledge can promote innovation. Subsequently, innovation can further increase production and service-delivery efficiencies, and reduce organisational costs. The findings of this study are not far from the conclusions arrived at by other scholars (e.g., Darroch, 2005; Nissen, 2006; Lee et al., 2012). Thus, worthwhile to note that effective responsiveness to knowledge is instrumental in improving production and service-delivery process innovations, which promote customer benefits. Therefore, having a well established knowledge strategy for customers and other partners may improve the levels of performance of the FIs.

Here, we may conclude that, knowledge responsiveness requires management to broaden the source of feedback to enrich the performance management process. Moreover, to ensure that KM processes are accurate and objective a wide collection of perspectives on an individual's performance should be gathered. Therefore, methods should be developed to collect specific feedback from peers, subordinates, and even customers. This not only makes appraisals better, but enriches the data available to drive staffing and the development of decisions. New technology and applications make the task of gathering and comparing performance data easier than ever.

In our study, KM was found to be a multi-dimensional predictor of high performance. The dimensions are: knowledge acquisition, knowledge dissemination, and responsiveness to knowledge. KM processes were found to account for up to 50% of the variance in KM variable (see Table 7.3). However, the findings indicated that responsiveness to knowledge has the biggest influence compared to the rest of KM processes; a discovery that reflect the

findings by El- Bannany (2008). This finding is also in agreement with the conclusions made by Ali and Ahmad (2006) who established that a positive relationship exists between the KM variables and performance in the banking industries in Malaysia. The current approach is also in accordance with some earlier studies (cf. Luthans and Youssef, 2007; Haslam et al., 2011).

So, we may conclude that KM is a continuous process where the three sub processes go hand in hand. They have a significant influence on high performance. Moreover, our findings indicate a strong significant contribution of KM to high performance. Therefore, KM is taken seriously by managers as a strategy that could be relied on to improve performance.

8.6 The Influence of KM on the HPO Framework and High Performance

In this section we discuss the influence of the variable (knowledge management) in the relationship between the HPO framework and high performance. It entails the existence of the mediation effect in the relationship between the HPO framework and high performance. Our results indicate that KM played a mediating role between the HPO framework and high performance (see section 7.4). This means that the presence of KM acts as a channel between the HPO framework and high performance in FIs. Thus KM strengthens the association between HPO framework and high performance in Uganda FIs. The findings revealed that an effective application of the HPO framework could lead to improved performance and this performance could be sustained if the managers improved their KM practices. Thus, the KM mediates the relationship between the HPO framework and high performance. We should call it an intervening mechanism which links organisational context and strategy to organisational effectiveness. So, KM plays a potential mediating role in this regard (Willem and Buelens, 2009; Huang et al., 2010; Zheng et al, 2010).

This finding supports Zack et al.'s (2009) finding in their exploratory study in which they found an insignificant relationship between KM and financial performance (criterion variable). They established a significant relationship between KM and organisational performance (i.e., a mediating effect), indicating that KM may not directly influence the criterion variable. Implicitly, Waal (2012) states that for successful implementation of the HPO framework in an organisation, there is need for openness and action orientation which we could refer to as KM. In the same vein, Darroch (2005) found evidence for the role of organisational support for successful KM outcomes such as performance. Despite the fact that Darroch's study did not test for any mediation effect, she implied that KM influences organisational innovation to influence successful KM outcomes. Based on the discussion, we may conclude that, in the FIs sector in Uganda, the HPO framework depends on KM to influence the level of performance in the sector. This implies that the managers in the FIs in Uganda can apply the HPO framework to improve organisational performance without necessarily relying on

the contribution of knowledge management. We are now ready for the final discussion on the path to the UFI model for HPO.

8.7 The Path to the UFI Model for HPO

In this section we discuss the predictive power of the HPO framework and KM on high performance. The key objective of this study was to establish the extent to which the HPO framework and knowledge management may predict the performance of FIs in Uganda. The relative influence of each predictor variable was assessed in a sequential way on the basis of the existing literature. The comparative importance of each predictor is assessed by measuring how much it adds to the prediction of a criterion variable. The findings show that the demographic factor had no significant influence in the model explaining high performance. KM explained most of the variance. The HPO framework explains a good part of the UFI model for HPO. KM had the highest predictive power in the model. The overall predictive power of the variables was 59%. The influence of each variable was established using the hierarchical regression. All in all, KM is suggested as a model in which FIs are looking for the achievement of economic, environmental, and social sustainability (see Freeman and Zollo, 2009).

Below we discuss the long and winding path for the Ugandan FIs to the application of the UFI model for HPO. We discuss the path by three steps HPOF and HP (8.7.1), KM and HPOF (8.7.2), and KM and HP (8.7.3).

8.7.1 The HPO framework and High performance

As a first step we discuss the contribution of the HPO framework to high performance. The correlation results revealed a positive and significant relationships between the HPO framework and high performance ($r = .677^{**}$, $p < 0.01$). (See section 6.8.1). The regression results also indicate a significant relationship between the HPO framework and high performance ($\beta = 0.677^{**}$, Sig. < 0.05) (see section 6.8.2). The path-model result confirms the regression results that revealed a significant relationship between the HPO framework and high performance ($\gamma = .0304^{*}$, $p < .05$) (see subsection 7.5.5). These findings provided support for Claim 1 that claims a positive significant relationship between the HPO framework and high performance. However, our discussion is primarily based on the path coefficients. Our finding agree with Rogers and Brenko (2006)'s argument that (1) high performance organisations push the limits of growth and (2) are able to adapt to change. There was a significant relation which is in agreement with previous studies which state that the applications of the HPO framework may result in high performance (see, e.g., Waal, 2010). The implication is that the HPO framework may directly influence the criterion variable or indirectly but most likely it does so through certain mediators in Uganda's FIs.

The existing literature emphasises that the HPO framework leads to improved competitive advantage. The HPO framework should in turn lead the organisation to superior performance. In the study we consider competitive advantage as an indicator of high performance. As a case in point we mention the longitudinal study the Nabil bank in Nepal by Waal and Frijns (2011). They established a direct relation between the HPO factors and competitive performance. They also observed that the power of competition influences performance because competition itself promotes innovation and instils into management a habit of thinking ahead. This is confirmed in the case of Dell and Toyota who knew how to mobilise their organisations to pull them away from competitors (Broyles et al., 2005).

8.7.2 The HPO framework and Knowledge Management

In the second step, the study findings reveal a positive and significant association between the HPO framework and knowledge management ($\gamma = .880$, $p < .05$) (see 7.5.5). This finding accordingly lends support for Claim 2 that there is a positive significant relationship between the HPO framework and knowledge management. The finding seems to indicate that changes introduced in the HPO framework may be related to better management of knowledge resources in the FIs. This argument is in line with scholars such as Waal (2011) who argues that people in a HPO spend a large amount of time on dialogue, knowledge exchange, and learning in order to obtain new ideas to improve their work and make the complete organisation performance-driven. In a recent study, Tan and Nasurdin (2010) found a significant relationship between KM and innovation which is a characteristic of continuous improvement and renewal (a factor of the HPO framework). They stressed that the way KM is accomplished determines the changes which organisations can introduce especially in products and processes.

From this discussion, we may conclude that when FIs make changes in the HPO framework, such changes will be associated with changes in the KM processes. In this process the HPO framework is mainly based on the knowledge that is acquired, disseminated, and responded. The idea is to build on the level of performance to higher performance. This assertion is supported by Waal (2012), who argues that organisations which pay more attention to the HPO factors and score high on these factors consistently achieve better results than their peers, in every industry sector and in every country in the world. The HPO framework has to be translated by managers to their specific organisational situation in the current brief time span, by designing a specific variant of the framework fit for their organisation (cf. Waal, 2012). We established that managers in Uganda can translate the HPO framework by concentrating on four factors (the management quality, workforce quality, long-term orientation, and continuous improvement and renewal). This implies that we can rely on KM processes as we introduce the HPO framework in FIs structures, organisational processes, and competitive advantage (organisational competences and resources).

8.7.3 Knowledge Management and High performance

In the third step, we examine the contribution of KM to high performance. The findings to this effect have revealed that there is a strong positive and significant relationship between KM and high performance ($\gamma = .692$, $p < .05$) providing evidence to support Claim 3 that there is a positive significant relationship between KM and high performance (see subsection 7.5.5). The study also found that KM made a contribution of 58% ($R^2 = .579$, $p < .05$) on the total variance explained in high performance (see section 7.3). The regression results revealed a statistically significant relationship between the KM and high performance ($\beta = .501$, $p < 0.05$), providing evidence that the KM is significantly and positively related to high performance (see subsection 7.2.2). Henceforth, we may argue that KM, among other factors, can explain, to a certain extent, the variance that may occur in the level of performance in FIs in Uganda. We therefore conjecture (or even posit) that FIs may become HPOs, depending on the level of utilisation of the KM that is undertaken in the institution.

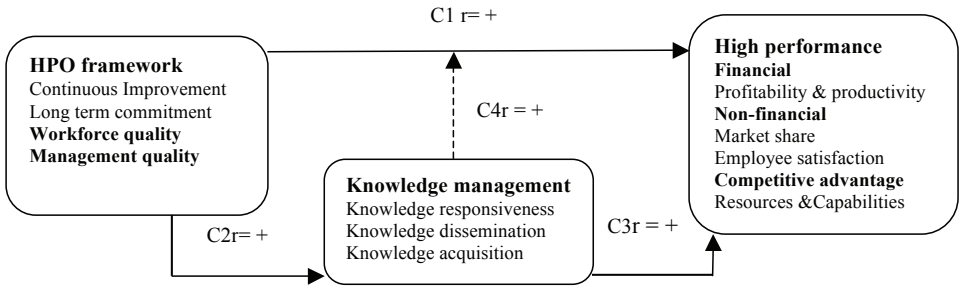
KM enhances dynamic capabilities and is a considerable determinant for improving business activities and edge competitive advantage (cf. Saghali, 2011). In addition many organisations manage knowledge resources which they employ to add value to their business activities (see Sigala and Chalkiti, 2007; Kruger and Johnson, 2011; Quast, 2012). In order for an organisation to be successful in the exploitation of knowledge assets and to drive competitive advantages, a holistic approach that spans KM, business strategy, and organisational and human factors should be used (see Cedar, 2003; AlAmmary and Fung, 2008).

Since a number of FIs are under environmental pressure to provide competitive services, it is imperative that managers design and develop new structures and processes based on useful knowledge for the purpose of sustaining high performance. Previous studies have emphasised the role of KM in performance improvement (e.g., Papoutsakis, 2007; Wijk et al., 2008; Andreeva and Kianto, 2012). In Papoutsakis's (2007) study, we found a case of Siemens best practices where a number of organisations were reported to rely on knowledge repositories (such as reports of past successful or failed projects, employees, products, and service profiles, known as Yellow Pages) and information technology tools for inputting and extracting knowledge from the repositories. This seems to imply that knowledge dissemination of the best practices is essential for purposes of performance improvement.

8.8 The Modified Path to the Advanced UFI Model for HPO

Now the UFI path model for HPO has been described and presented in words, we provide a summary in Figure 2. It is based on the foregoing theoretical implications. The model represents normal operations of FIs is given in Figure 8.2. After all the smaller and larger modifications we now call it the advanced UFI model for HPO in Uganda.

Figure 8.2 The advanced UFI model for HPO in Uganda.



Legend: C = claim; r = regression; and + = positive and significant.
1. (C1r = +; C2r = +; C3r = +; C4r = +); the regressions of the relationships are positive and significant.

8.9 Chapter Conclusions

In this chapter, we discussed our findings based on the examination of 26 FIs in Uganda. More specifically, below we summarise the findings on (A) the state of performance of the FIs, (B) the KM practices in Uganda, (C) the influence of the HPO framework on performance, (D) the influence of the HPO framework on KM, (E) the influence of the KM processes on high performance, (F) the mediation effect, and (G) the path to the UFI model for HPO. Where applicable we provide conclusions.

A: The state of performance

From the discussion on the state of performance in FIs, we may conclude as follows**.**
(1) There exists a moderate high performance level in FIs in Uganda.
(2) Financial outcomes of performance have the highest contribution to high performance in FIs.
(3) Both the financial and non–financial outcomes contribute to high performance in FIs.

B: The knowledge management practices

Our discussion on the KM practices in Uganda leads us to the following conclusions.
(1) Three processes are considered important in the KM practices in FIs in Uganda.
(2) Knowledge responsiveness is the most practiced KM process in FIs.
(3) Knowledge acquisiton is the least practiced KM process in the FIs.
(4) Knowledge management strategies are accepted to a reasonable extent as having an impact on the performance of FIs.

C: The influence of the HPO framework on high performance

After discussing the findings on the influence of the HPO framework on high performance (see 6.8.2), we arrive at the following conclusions.

1. There is a positive and significant relationship between the HPO framework and high performance.
2. There is a significant influence of the two factors, continuous improvement and renewal and workforce quality, on high performance in FIs.
3. The three factors management quality, long-term orientation, and continous improvement and renewal have a significant influence on high performace in FIs.
4. The composite of the HPO framework has a positive and significant influence on high performance in FIs in Uganda.

The four HPO framework factors are strong predictors of high performance. The predictive power of variables in the order of importance is as follows: management quality, workforce quality, continous improvement and renewal, and long-term orientation; when combined they explain a big variance of high performance.

D: The influence of the HPO framework on KM

After discussing the findings on the influence of the HPO framework on KM (see section 8.3), we arrive at the following conclusions.

1. There is a positive and significant relationship between the HPO framework and KM.
2. There is a significant influence of the HPO factors on KM in FIs.
3. The composite of the HPO framework has a significant influence on KM in FIs in Uganda.
4. The four HPO framework factors are strong predictors of KM in FIs in Uganda.

E: The influence of KM on high performance

After discussing the findings on the influence of KM on high performance (see section 8.2), we arrive at the following conclusions.

1. Knowledge responsiveness and dissemination have a significant influence on high performance in the FIs.
2. The research results indicate that all three KM processes have a significantly impact on the performance of FIs in Uganda.
3. The composite of KM has a positive and significant impact on high performance in FIs in Uganda.

F: The mediating effect

From our discussion on the influence of the mediating variable KM on the HPO framework and high performance, we may conclude the following.

1. The HPO framework has a significant influence on KM in FIs in Uganda.
2. Knowledge management has a significant influence on high performance in FIs in Uganda.

3. KM mediates the relationship between the HPO framework and high performance in FIs in Uganda.

The three KM dimensions are strong predictors of high performance. The predictive power of variables in the order of importance is as follows: responsiveness to knowledge, knowledge dissemination, and knowledge acquisition; when combined they explain a big variance of high performance.

G: The path model

From the discussion on the path towards the UFI model for HPO sectors, we may conclude the following.

1. The demographic characteristics have no significant influence on high performance.
2. The HPO framework has a significant influence on high performance in FIs in Uganda.
3. KM was found to be a strong predictor of high performance and increased the overall explanatory power of high performance in Uganda's FIs.
4. The main driver in the path towards the advanced UFI model for HPO is the HPO framework, followed by KM, and then the demographic characteristics (number of employees and institutional life cycle phase).

The cardinal conclusion that can be drawn from this discussion is that the HPO has a direct influence on high performance, and that KM strengthens the association between the HPO framework and high performance in Uganda FIs.

CHAPTER NINE

Conclusions, Recommendations, and Future Research

9.0 Conclusions, Recommendations, and Future Research

In this chapter, we present the major conclusions of our research. In section 9.1 we begin by providing answers to the seven research questions (see Chapter 1) that we set out to investigate at the beginning of our study. Then, we explain our answer in the light of the problem statement in section 9.2. In section 9.3 the five main conclusions are provided. We discuss the study implications in section 9.4. In section 9.5 we give our main recommendations. We remark that the main conclusions and main recommendations are additional to the chapter conclusions and recommendations given earlier in the respective chapters. The research limitations and areas for future research are in section 9.6.

The basic idea of the research is to provide a framework for FIs in developing countries to sustain HPO to survive in a globalised world. In Chapter 2 and Chapter 3, we reviewed the literature to identify the models and methods on how to attain and sustain HPO. From the findings of our investigation, we may derive the following four conclusions.

1. According to the literature, the HPO framework is an accepted practice in many countries, in particular when considering its well-publicised benefits in developed countries. Nevertheless, the HPO framework has not yet been enthusiastically, and persistently introduced and well-practiced by the FIs in Uganda.
2. According to literature, KM is an accepted practice in the FIs, in particular when considering its well-publicised benefits in developed countries. Our findings indicate that there are KM initiatives in FIs, which is an indication that the KM processes may progressively play an important role.
3. The FIs are continuously aiming at competition and improvement. Passion is necessary for improvement. To attain high performance and remain high performers over a longer period passion should also be the driver. Since there are many competitors in the market the performers have to work hard.
4. Our study also indicates that FIs need improvement in various areas. The data shows that higher performers, taken as a whole, should do considerably more to match their performance level with advanced KM strategies. Even so, high performers are assumed to report how their organisation-wide performance measures can match their organisation's strategies.

In this thesis, we defined an HPO as *an organisation that achieves financial and non-financial results that are exceedingly better than those of its peer group over a period of time of five years or more, by focussing in a disciplined way on that which really matters to the organisation.* (cf. Waal, 2012)

To enable easy reading, in the next sections we restate our research questions and claims. Since we have used different methods for different chapters, we include a summary of the

methods used for each chapter. We also highlight the major findings, limitations, and future research.

9.1 Answers to Seven Research Questions

In subsection 1.2.2, we formulated seven research questions. We addressed these research questions in the Chapters 3, 5, 6, and 7. In this section, we summarise our answers on the seven RQs. Furthermore, we explicitly discuss objective 8 at the end of the section.

Answer to RQ1

In Section 1.1, we remarked that there was a growing interest in KM because of the increasing awareness about its benefits. Nevertheless, up to now, there is a scarcity of empirical studies about the KM practices of FIs. Furthermore, we showed (1) that most of the existing research on KM had been undertaken in the Western and Eastern context and (2) that there is still a shortage of research on KM practices in developing countries such as Uganda. This led to the formulation of our first research question.

RQ 1: What are the theories applicable to understanding KM practices and HPO in financial institutions?

To answer RQ1, we made a critical review of various existing related theories. In addition we conceptualised the HPO framework, KM, and high performance in the Chapters 2 and 3. We also discussed three KM models and investigated their criticisms, limitations as well as their relevance to our study. We provided evidence to the choices we made about the different KM and performance theories that firms can use to implement KM in their operations. We also identified the elements of the UFI model for HPO from the literature (see Chapter 3).

From the above introduction in combination with the findings of our investigations described in Chapters 2 to 5, we have observed the following.

1. There are three KM and performance theories, viz. Resource based view (RBV), Dynamic capabilities (DCs), and knowledge-based theory (KBT) that are suitable for investigating the relationship between KM and high performance in Uganda FIs.
2. The three elements of the UFI model for HPO include: (a) Darroch's (2005) KM and performance model, (b) Waal's (2008) HPO framework, and (c) the AMA (2007) high performance model, and Porter's (1991) competitive advantage model.
3. Not all the existing KM and performance theories are appropriate for investigating the relationships (a) between the HPO framework and high performance, and (b) between KM and high performance in the activities of FIs in a developing country such as Uganda, because of the unique challenges faced by FIs in developing countries as we discussed in Chapter 5.

4. Existing KM and performance theories and models, despite their limitations, give a useful guide to understanding the role of KM in the relationship between the HPO framework and high performance among firms.

All three theories have their own way of placing the major KM activities and their enablers. They all aim to produce a dynamic system to reinforce the organisation's core competencies. Meanwhile, the KM process as described in the models contains the action steps which the organisation uses to identify its needs with emphasis on the manner in which it collects, adapts, and transfers the relevant information across the organisation. Through the KM process, the theoretical models can be used to foster the development of organisational knowledge and enhance the organisational impact of employees throughout the organisation.

To understand the HPO framework, KM practices, and high performance in Uganda, we need a combination of theories. The FIs can deploy or share resources, activities, and skills across the industry applicable to understanding the HPO framework, KM, and performance in FIs. The KBT may be useful in explaining sustained high performance. However, the study findings show that the Western-based models should be applied cautiously in a developing country context. The Western-based models were developed in the context of a different organisational environment, and thus some may not fully address the needs of FIs.

From the literature review, we may conclude that no single theory can be applied by the managers to improve performance in the FIs. However, the appropriate combined use of RBV and the DC theories may help the manager to improve the institution's performance towards HPO.

Answer to RQ2

In section 5.4, we discussed the performance levels in FIs in Uganda with the aim of appreciating what has been established in the studies carried out so far. To establish the use of the HPO framework applicability in FIs we needed to understand the existing levels of performance in Uganda, and consequently, this background led us to the second research question.

RQ2: What is the existing level of performance of FIs in Uganda?

To answer RQ2, we collected archival data which we analysed to establish the existing performance levels of the selected FIs (see Appendix D). Furthermore, we collected information from employees of the FIs under study by means of questionnaires (see Appendix B). Our findings resulted in the following answers.

1. The FIs in Uganda are a new formation from mergers, acquisitions, and takeovers with a few local banks.
2. The preliminary study established that the FIs in Uganda pass the test of having existed for the last 5 to 10 years as per our definition.
3. FIs in Uganda contribute to the growth of the Ugandan economy mainly through providing essential financial services, providing benefits on the domestic economy, and contributing to business performance and poverty reductions.
4. The level of performance: profitability and productivity fluctuates from below to above industrial average, but its mainly below the industrial average for most FIs, and the market share is monopolised by basically six FIs.
5. FIs in Uganda are essentially evaluated by quantitative analysis of financial ratios. From the analysis of the profitability and productivity ratios, we report that from the past experiences, such as the performance levels, we can determine the willingness of institutions to adapt to the HPO framework and to follow an alternative approach for the analysis of their performance.
6. The findings from the employee's satisfaction questionnaire indicated average levels of performance; the HPO framework score ranged from of 6.3 to 7.3.
7. A comparison by ranking the HPO scores and matching the financial results indicates a clear group of 'HPO leaders' and a group of 'HPO laggards' in FIs in Uganda.
8. Although traditionally, the performance of banks is evaluated by a quantitative analysis of the financial ratios, our study demonstrate that the HPO framework can be used to identify and explain the performance differences in the Ugandan banking industry in much more detail.

Answer to RQ3

In section 2.4, we discussed the KM practices in FIs with the aim of appreciating what has been established in the studies carried out on KM. To investigate the relationship between KM and high performance in FIs we began by establishing the existing KM practices. Consequently, we develop claims and derived insights into the application of KM in FIs. This background led us to the third research question.

RQ3: What are the existing KM practices in FIs in Uganda?

To answer RQ3, we collected information from employees of the FIs under study by means of interviews (see Appendix D). Our findings resulted in the following answers.

1. The respondents recognise KM as a formal scheme (or programme) which exists in their institutions.

2. FIs are beginning to feel that the knowledge of their employees has to be seen as their valuable asset. But only a few FIs have in fact begun to manage their knowledge assets actively on a small scale.
3. Managers believe that expanding the use of KM as a strategy, grows in practice across different departments of the organisation.
4. The status of KM practices in FIs (despite its acceptance) is that most respondents observe that much is still to be accomplished (in order to improve the KM-practice performance).

From the above answers it was concluded that KM is embedded in all the FIs' operations, KM is part-and-parcel of everyday tasks and it blends seamlessly into the background of the organisations' environment.

Answer to RQ4

In subsection 2.1.5, we discussed the importance of the HPO framework with the aim of appreciating why the concept has been given so much recognition in the last decades. We also showed in subsection 3.3.3 the relationship between the HPO framework and high performance of a firm. With this background in mind, we developed the fourth research question.

RQ4: What is the relationship between the HPO framework and high performance in FIs in Uganda?

To answer RQ4, we distributed questionnaires to the employees of FIs (see Appendix C). We arrived at the following answers.

1. The HPO framework seems to have a relationship with high performance in the FIs.
2. The HPO framework seems to have a positive influence on high performance in FIs.
3. The HPO framework was confirmed to have a significant relationship with high performance in FIs in Uganda.

From the above answers we may conclude that the following is true. Provided that the HPO framework has a noted impact in particular on the performance of the business process, then we may expect that investments in the HPO framework have a specific return in terms of the improved performance.

Answer to RQ5

In subsection 2.1.5, we discussed the importance of the HPO framework with the aim of appreciating why the concept has been given so much recognition in the last decades. We

also showed in subsection 3.3.3 the relationship between the HPO framework and the KM of a firm. With this background in mind, we developed the fifth research question.

RQ5: What is the relationship between the HPO framework and KM in FIs in Uganda?

To answer RQ5, we distributed questionnaires to the employees of FIs (see Appendix C). We arrived at the following answers.

1. The HPO framework seems to have a relationship with KM in the FIs.
2. The HPO framework has a strong and significant relationship with KM in FIs in Uganda.
3. The HPO framework seems to have a positive and significant influence on KM in FIs.

Answer to RQ6

In subsection 2.2.4, we discussed that the KM practices may differ from one organisation to another depending on a given situation or context. Our research aim was to explore whether there were any differences in the way FIs in the finance service sector in Uganda implemented KM strategies in their operations. Taking this into consideration, we formulated our sixth research question.

RQ6: What is the relationship between KM and high performance in FIs in Uganda?

To answer RQ6, we interviewed managers (see Appendix D) of selected FIs. We also distributed questionnaires to the employees (see Appendix C). From the interviews with the managers of the FIs and a key informant from the supervisory department of BoU, the study established and operationalised KM practices. We report the following eight observations.

1. Knowledge management has a significant contribution to high performance in FIs.
2. Knowledge acquisition, knowledge dissemination, and knowledge responsiveness are the most appropriate KM processes for implementation among FIs in the service sector in Uganda.
3. There is a strong relationship between the composite of KM and high performance in FIs in Uganda.
4. There is no significant difference in the KM strategy of FIs in Uganda. The KM strategies are aligned with existing managerial processes. When alignment happens, the strategy in itself becomes a valuable part of the performance of the company.
5. There was no significant difference in the KM practices; the respondents basically used the same KM initiatives of acquisition, dissemination, and response to knowledge in the FIs.

6. There is a significant difference in the use of knowledge resources. The compelling reason for investing in KM is to increase value for customers and to reduce costs incurred by their institutions.
7. We believe that employee satisfaction is necessary for high performance, though studies in the past have not supported this belief.

From the above answers we may conclude that the following is true. Provided that the KM practices have a noted are particular in impact on the performance of the business process, then we may expect that investments in KM have a specific return in terms of improved performance. Even further, there will be a transitive relationship with high performance because there is a link established between the process level and the organisational level of performance.

Answer to RQ7

In section 2.3 and subsection 3.3.4, we discussed from a theoretical perspective how KM can influence the relationship between the HPO framework and high performance. RQ7 was based on our desire to explore, from an empirical perspective, the influence that KM may have in the relationship between the HPO framework and high performance in the finance service sector. Our seventh research question was a direct outcome of this need.

RQ7: Does KM influence the relationship between the HPO framework and high performance in FIs in Uganda, and if so in what manner?

To answer RQ7, we used the same distributed questionnaires to the employees of FIs (see Appendix C). We arrived at the following answers.

(1) KM seems to have an influence on the HPO framework in the FIs.
(2) KM seems to have a positive influence on high performance in FIs.
(3) The HPO framework influences high performance in FIs in Uganda.
(4) KM mediates the relationship between the HPO framework and high performance in Ugandan FIs.

The main conclusion that can be drawn from the results is that the FIs in Uganda cannot apply the HPO framework to improve performance without relying on the contribution of KM.

We had one major objective and we tried to answer it.

Objective 8: *To design the Uganda financial institutions (UFI) model for HPO, i.e., a model that can be used to support the FIs in Uganda to reach the HPO level.*

This objective was approached by testing the conceptual model, derived from the literature review, in the FIs in Uganda. In the text, it was established that our updated model has both theoretical and practical contributions. Theoretically, the insights into the dynamic capabilities used, particularly into strategic management, have been integrated in the knowledge-based theory on improving performance in FIs. Practically, the HPO framework may lead an organisation to high performance and effective KM is able to lead an organisation to achieving sustained competitive advantage. However, our research established that the HPO framework is in need of mediation by KM to enhance the institution's high performance. From the improved situation it was further, established that KM is important, particularly in the recent recession period. Two points of attention were: (1) the retrenchment of the workforce and (2) retirement of experienced personnel. In summary, the FIs must establish a KM strategy that efficiently transfers tacit and explicit knowledge to employees.

The normative significance of each model depends on the fit between its assumptions and their reality. The two constructs, the HPO framework and KM, operate within the same model. Consequently they are consolidated to one level, directly above the high performance levels for which indicators are used which are derived from the consolidated model of the UFI model for HPO. This approach may help FIs (1) to go beyond the initial benefit of unique KM practices and that of benchmarking against oneself over time and (2) to adopt the UFI model for HPO. Thus, for sustainability of high performance, FIs in Uganda should adapt and endeavour to manage knowledge effectively.

9.2 Answer to the Problem Statement

Our study examines the extent to which KM can influence FIs in Uganda to become an HPO. Our aim was not only to investigate the current situation, but also to attempt and find methods for improvement. We aim at predicting future developments and offering concrete recommendations. Based on these aims we formulated our problem statement (PS) as follows.

Problem Statement:

To what extent can KM help financial institutions in Uganda to become high performance organisations?

With reference to the answers to the seven research questions, we arrived at the following answer given in four points.

1. The results from this research have shown that to a large extent, it is possible to design a model which FIs' policy makers and practitioners can use to plan KM practices in the finance sector in Uganda, for this purpose We have proposed the UFI model for HPO.

2. The model further shows (2a) the likely effects of the HPO framework application, (2b) the employed KM strategies on high performance, and (2c) the mediating effects of knowledge management.
3. The model shows that the FIs can contemplate on improving their KM practices in order to attain and sustain high performance.
4. The model proposes different paths that the managers in the FIs can use to achieve high performance with emphasis on the linear model of the HPO framework, KM, and high performance.

Moreover, some of our findings form an answer to the question: how high performance can be sustained in FIs in Uganda? Bogner and Bansal (2007) suggested that KM is the basis of sustained high performance; this was established in a developed country, viz. the U.S. Our study has answered the question for a developing country; from our experience we know that we need (1) to improve on the KM practices and (2) to adopt the HPO framework. By combing these two actions, we expect that the result will be a sustained high performance.

9.3 Five Conclusions

From the literature review, we have observed that appropriate use of RBV and the DC theories may help the FI manager to improve the institution's performance to HPO. From the research findings in this thesis and the answers given above, we derive the following five conclusions.

First, we observe that the UFI model as proposed to FIs in Uganda in Chapter 3 can be used to follow strategies that will result in attaining and sustaining high performance in the industry. The model emphasises the factors that contribute to the development and sustainability of HPO. The model was operationalised in FIs in Uganda and a resultant path model is suggested in Chapter 8. From the observation above, we may conclude (conclusion 1) that FIs in Uganda can use different paths to achieve HPO. The model can be extended to the financial operations of other developing countries with similar challenges. In this way, the research has contributed to the available literature and to future research topics.

Second, we observe the following. To the best of our knowledge, no study has taken into account an integrated model of HPO framework, KM, and high performance as we have. Most previous studies have only looked at parts of the model, for example, the relationship between corporate social responsibility and the HPO framework (cf. Waal and Escalante, 2008), KM and high performance (see Bogner and Bansal, 2007; Pillania, 2008), KM and financial performance (see Darroch, 2005; Maseki, 2012), characteristics of high performance organisations (cf. Waal, 2011), and KM, innovation, and organisational resilience (see Mafabi, 2012). Contrary, our research has coined a holistic approach in understanding the influences of the HPO framework on high performance and KM practices

on high performance. Thus, KM needs to help key workgroups to adopt the approaches of high performers. From these observations, we may conclude (conclusion 2) that KM is refocussed and enables FIs to create HPO and teams that remain current, competitive, and vital. They should place emphasis on hiring, developing, and retaining the right people.

Third, we observe the following. Although several studies have been performed on KM, most of the studies have focussed on KM in the Western world. There are hardly any studies on the HPO of FIs in Uganda. Therefore, this research has contributed to the academic literature that focusses on the KM practices of FIs in a developing country helping to bridge the gap in the available literature. Moreover, the study provides a platform that future researchers can use to carry out related research in developing countries. From these observations we may conclude (conclusion 3) that our study has widened the academic debate on the suitability of using Western KM models to improve performance in the developing world.

Fourth, we observe the following. This research has drawn attention to the HPO framework and its influence on high performance in a developing country such as Uganda. The HPO framework factors have been frequently ignored in previous research (cf. Manzoni, 2004) and yet as we have seen in this research, they can have a significant influence on improving performance. However, new business models have a higher dependency on intellectual capital than older business models. Hence, designing them requires an in-depth understanding of intellectual capital (cf. Roos et al., 2006). Although previous studies have considered intellectual capital, we have been able to prove that an in-depth understanding of KM can also be depended on introducing a new business model such as the HPO framework. From these observations, we may conclude (conclusion 4) that KM is dependent on the introduction of new business models such as the HPO framework.

Fifth, we observe the following. Our study has drawn attention to the mediating effect of KM in the relationship between the HPO framework and high performance. From this observation we may conclude (conclusion 5) that the relationship between the HPO framework, KM, and high performance are strongly needed for FIs in Uganda. There are hardly any studies on the relationship between KM and high performance in developing countries. This study has, to the best of our knowledge, made the first attempt in Uganda to explore these concepts in a developing country's setting and has thereby contributed to academic literature in this area. We believe that KM practices are crucial in the sustainability of competitive advantage and HPOs. We note that to be practicable, a KM strategy needs to be aligned with existing managerial processes.

Finally, we formulate five advice statements for the low-banked situation in Uganda. We believe that the low-banked situation it can be best dealt with (1) KM activities based on knowledge dissemination of acceptable services, and (2) with a considerable reduction of

interest rates. Moreover, (3) KM practices should be undertaken by the investing banks to help promote awareness of their services, (4) build a good reputation through frequent advertising, and (5) support public relations activities that reach their target audience. All these five advices will help convince the local market of the service offered by the FIs.

9.4 The Study Implications

In this section we present the study implications, beginning with the theoretical implications discussed in subsection 9.4.1. Subsection 9.4.2 presents policy and the policy makers. Subsection 9.4.3 discusses managerial implications.

9.4.1 Theoretical Implications

The implications for the existing theory can be formulated in two ways (1) whether or not the findings support the views of the existing theory (i.e., support or contradict) and (2) whether or not the findings have filled the theoretical gaps contribute or do not contribute. Below we provide a telling overview of twelve theoretical concepts, their applications, and our evaluations for possibilities above.

Conceptualisation

The study has *contributed* to the conceptualisation of high performance. So far, other researchers had focussed on the need for high performance besides the general performance. This study provides evidence that high performance can be described as a measurement of what FIs have achieved in the form of financial, and non-financial results, and why they are better than those of its competitors over a period of time. High performance (exceptional performance) is the outcome of a clear vision, aligned objectives, and focussed and sustained efforts. A performance management process should tie together and reinforce these elements.

Attributes

The components of high performance can be taken to be outcome of many attributes of high performance which had been hard to pin down in the extant literature (see Rogers and Brenko, 2006; Thomson, 2010; Waal, 2012). This study has in one sense *contributed* by two new outcome attributes of high performance in addition to the existing characteristics such as profitability, productivity (cf. Wijk et al., 2008; Simons, 2008). We can now explain high performance in terms of (1) financial (2) no-financial outcome, and (3) competitive advantage attributes.

Waal's HPO framework

We define high performance in FIs as an adaptation of the usual HPO framework that FIs demonstrate. The performance improvement characteristics create a drive towards high performance. Waal's HPO framework can be used (i.e., *supports*) for spearheading organisational improvement, and to clarify an ambitious corporate strategy to drive improvements in production and quality, and all this without increasing the cost for clients. In this study, our definition of high performance encompasses competitive advantage because we received encouragement (i.e., *support*) support for it. This implies that Porter's (1998) competitive advantage is only partly an outcome of the HPO framework in Uganda's FIs. Instead, it appears that Waal's (2008) HPO framework seems to apply. In other words our research findings *contributed* where we established that, FIs managers appear to have added rare values to their performance.

Interpretation of theory

The interpretation of the existing dynamic theory, RBV, and KTB has shown to be solid grounds for our examination. A complex set of outcomes has been presented by our study. With relevance to the RBV and the KBT, the findings *support* the view that, knowledge resources should be acquired, disseminated, and used by FIs together with the HPO framework for high performance to be realised. For example, foreign owned FIs that have been exposed to the HPO framework can acquire knowledge from their domicile and disseminate it to indigenous FIs to improve their performance.

Competition among FIs

The findings have answered the question of how KM is practiced in the financial sector. It was revealed (i.e., *support*) that KM is practiced mainly through knowledge responsiveness and dissemination. Little knowledge is acquired in the FIs since the idea of doing so was *moderately supported*. Our findings are too limited to support Grant's (1996) knowledge-based view which focusses mainly on knowledge-based resources that are usually difficult to imitate and socially complex. Moreover, we have confirmation (i.e., *support)* that the resources contain heterogeneous knowledge and (2) the capabilities among firms can be considered as the major determinants of (2a) sustained competitive advantage and (2b) superior corporate performance (cf. Grant, 1996; Spender, 1996; Kaplan et al., 2001; Decarolis and Deeds, 2006; Carlos, 2006).

Teece et al., (1997)'s dynamic capabilities theory pays attention to competitive advantage which was *partly supported*. However, the findings show limited competitive advantage in FIs, since their competition was strongly related to knowledge management. FIs are short of skilled employees which impacts directly on the profitability and competitiveness of the FIs. This may raise a question about the applicability of the theory; for instance, why is the

DC not quite evident in Uganda's FIs? While this question is a basis for further studies, we can argue that the theory is probably sensitive to the extent that knowledge as a dynamic capability depends on the environment to survive (cf. Collins and Smith, 2006).

Tangible assets

The findings are limited in support of the KBT knowledge acquisition practices (i.e., *support*), a *contribution in the form of raising awareness*. This raises more questions about why the theory is not quite evident in Uganda's FIs. Whereas this question is a basis for further studies, we can argue that the KBT theory is probably culturally sensitive to the extent that KM depends on knowledge which is embedded and carried through multiple entities including organisational culture and identity, policies, routines, documents, systems, and employees. However, while intangible assets are developed overtime and owned by organisations, there is no direct ownership over employees' knowledge that can quickly become outdated without the acquisition of new knowledge. Moreover, the employee's skills can quickly disappear when they leave their employer.

Retention of rare resources

The RBV is deemed relevant for superior or high performance studies as it advocates for resources. They add value, and show retention of rare resources, inimitability, non-substitutability, and as organisational support framework (cf. Peteraf and Barney, 2003; Wade and Hulland, 2004; Barney, 2007). These issues have been found to be rather valid. Our study found that KM is important. The theory emphasises the retention of rare, inimitable, and non-substitutable resources which are supported by the organisation. The study answers the question as to whether rare and non-rare resources can be organised through KM by providing the empirical evidence. Consequently this study makes it possible for the RBV theory to provide adequate explanations of high performance. So far, the notions "to attain" and "to sustain" have been questionable (see Lockett et al., 2009; Freeman and Zollo, 2009). Based on this analysis, we may state that FIs in Uganda can adopt the RBV theory for value creation, retention of rare resources, inimitable and non-substitutable resources given that there is high labour turnover in the FIs (i.e., *support*).

The RBV literature indicates that competitive advantages can be created and sustained via knowledge use. Therefore, we believe that the RBV is an appropriate theory to explain whether KM processes indeed formally and empirically yield competitive advantage. The main question is: how can we formally and empirically explain the nature of the relationship between KM and competitive advantage (cf. Halawi et al., 2005). Our study has made the first step in this direction (i.e., *small contribution*).

Continuous development

From the perspective of the dynamic capabilities, this study contributes to the principle of continuous development, and the renewing of various resources and capabilities to improve the institutions to HPOs. The findings indicated that the HPO factors are associated KM capabilities, and are eventually associated with high performance. The DC theory emphasises the need for a firm to sense activities, to seize the opportunities, and to reconfigure or adapt to the changes in the environment in order to remain competitive (cf. Teece, 2009). The theory provides that firms should focus on exploitation of resources such as knowledge as well as on the ability to develop and renew their organisational capabilities (cf. Teece et al., 1997). Dynamic capabilities enable the institution to react to changing market conditions by developing and renewing its capabilities, thereby achieving and sustaining competitive advantage. Our study *contributed evidence* for the application of the DCs theory in that it explains high performance (cf. Davenport and Prusak, 1998; Waddell and Steward, 2008; Pinho et al., 2012). Our study satisfies Ishengoma and Kappel (2011) in the quest for further multidimensional studies since he stated that research in DCs in developing countries is scanty.

Organisational interventions

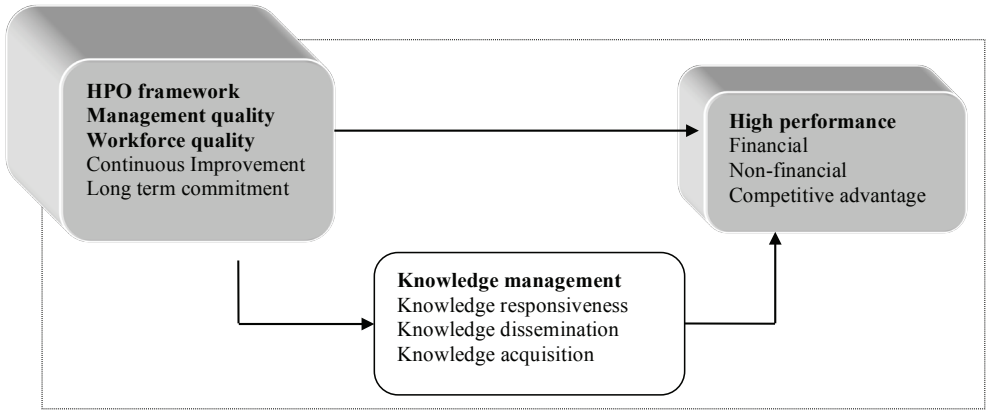
Similarly, the resource dependency theory (Pfeffer, 2007) also emphasises the need for the organisation to tap any useful resources, such as knowledge to make changes in the organisation. The theory emerged on the premise that previous theories failed due to inter-organisational and interdepartmental behaviour. The main implication is that organisations should acquire resources necessary for organisational interventions such as the HPO framework. The acquisition and processing of resources is performed to satisfy the demands of the environment which is necessary for organisational adaptation. Our study *supported* to raise awareness and *contribute a little* by proposing the first steps.

Our contribution

Below we discuss our contribution in summary.

Our study found significant relationships between the HPO framework and high performance, KM and the HPO framework, as well as KM and high performance. This could imply a challenge to KM, viz. obvious confronting and grouping the HPO framework with KM is expected to enhance high performance. The continuous challenging theory has thus become clear in explaining the HPO framework and the high performance in a form that was never published before. The above mentioned theoretical implications are summarised in Figure 9.1.

Figure 9.1 The UFI model for HPO.



Developed by the researcher

The path from roles to institutions

The results of the study are generally consistent with the theoretical predictions based on extant research. Employees should play vital roles such as those that are not (a) within their performance range,(b) are unreasonable by skills or competencies, but still (c) can make incremental impact on key business measures such as customer satisfaction. The goal of KM through the process of knowledge acquisiton is to identify roles first, then skills, then individuals to be recruited into the institutions. The goals of the process of knowledge dissemination encompass internal processes, information systems, organisational culture, and internal networks. The goal of the process of knowledge responsiveness is that, the managers and employees help clients align underlying processes and operating models to support business strategies. In this way, they create flexible world-class operations that enable rapid response to changing customer demands and market opportunities. The preceding discussion secures that our theoretical implications form a goal to aim at.

Policy and managerial activities

The study contributed to existing literature on KM practices of FIs in developing countries and formed a foundation for future research in related fields. The framework will also support academics in their pursuit of ever more specific improvement factors. The study has opened points of departure, for future research in the HPO framework, knowledge management, and high performance in developing countries with emphasis on policy and managerial activities.

9.4.2 Policy and Policy makers

Based on the conclusions and the review of the theoretical concepts and their applications, the following implications are drawn for policy and policy makers.

A national policy

There is need for a national policy on knowledge economy. A well balanced set of KM policies should be geared towards promoting effective KM in the finance sector in Uganda. The KM policy should guide the identification and acquisition of relevant knowledge, and govern their dissemination and use in FIs. The national KM policy should encourage FIs to design and operationalise KM policies that guide the KM activities such as knowledge retrieval and use. The KM policy should also consider knowledge as a critical resource for the FIs survival and accordingly provide for an adequate acquisition, protection, and retention of knowledge.

HPO awards

The government should design a policy that requires FIs to provide outstanding services to the public. Such a policy should have guidelines on how to provide excellent services to the public. The guidelines can take account of efficiency, effectiveness, and value addition. The policy should provide for the recognition of organisations which sustains their HPO status.

International communication

Relevant policy measures would aim to increase the affordability of access to and use of international communication media, such as the internet, personalised emails, and Reuters, in order to allow adequate and timely knowledge acquisition on market trends and performance as well as facilitate the adoption of the HPO framework.

Monitoring and ranking

The UFI model for HPO can be used by the policy makers to gather feedback to evaluate and compare the performance of all FIs in Uganda both formal and informal. This will make the monitoring and ranking of these FIs possible, lack of this practice can make the FIs lax in the service delivery. Introduction of this practice in Uganda can motivate management and employees of FIs to improve their productivity.

Different interest rates

The applicability of the UFI model for HPO can help policy makers to identify and prioritise factors to consider when making performance improvements in the countenance of consistent budget constraints of the FIs. The model will assist the BoU to come up with

a criterion to control the FIs liberalisation to have different interest rates on loans. It will complement the traditional performance models by adding the HPO framework.

Attaining HPO benefits

The policy makers will add new insights into the financial area. From this study, the reader can appreciate why and how the KM processes influence high performance. The study emphasises the message for developing countries. KM should be targeted more at sharing the burden of attaining HPO benefits, whereas in developed countries the focus is more on additional benefits. Government and development partners can support KM and competitiveness programmes that seek to enhance high performance in FIs.

Human resources

There is need for managers of FIs to design attractive HRM policies that are geared towards considering human resources as the engine for driving the value of FIs. The HRM policy should emphasise the sourcing, attraction, development, and retention of HR which the FI considers critical for organisational value addition. Is should align the human resources tools with the performance management system (PMS) so that employees are trained, evaluated on, and rewarded for the operations that are important to the FIs (the critical success factors and key performance indicators).

9.4.3 Managerial Implications

The managers of FIs will aim at improving their performance to high performance. They should simultaneously emphasise financial and non-financial performance, and competitive advantage. For example, they can design, execute, and evaluate high performance using the HPO framework to improve their level of competitiveness or increase the organisational value. These objectives can be used to determine the level of performance. FIs should strive towards creating value.

Management audits

Managers of FIs should move their organisations to high performance by designing effective KM systems that generate knowledge resources with specific KM strategic objectives and use knowledge resources to attain high performance. The managers should carry out KM audits in a bid to determine KM return on investment. This may help FIs to measure the value addition of KM activities in the FIs. So, there is need for the FIs to appoint KM officers or managers who should be responsible for managing the KM system. Managers should build and improve the performance in the institutions.

Different exposure

Recent experience has shown that FIs in different countries have had a different exposure to financial turmoil over the last few years. We are aware of the limits of perceiving and taking for granted the assumptions of the HPO framework. However, if adopted the HPO framework will operate effectively in developing countries and improve the FIs performance. From the managerial point of view, the framework helps to find sound improvement recommendations for the Uganda banking industry, especially the local banks. In this respect, managers can immediately start 'upgrading' their organisations.

It should be kept in mind that organisations and environments are continually evolving. However, the improvements in ideas and practices need to be adapted continuously. If this is not done, organisations run the risk of meeting the same fate as many organisations characterised as excellent in the past. This research proposes to managers an approach to structure their KM methodology and use of resources in a way that may maximise performance, either as stand-alone systems or as part of the institution. The research results provide managers with a model that seriously requests focus on their continuous improvement and renewal efforts to achieve better performance.

The role of top management

These findings suggest that greater attention and resources are needed to influence KM practices and related competency issues in organisations. Top management need to promote the creation of knowledge organisations where people develop personally and professionally. In addition, the KM strategy should emphasise staff training in using new knowledge and tools. As soon as the FIs decide to make the HPO improvement suggestions a part of their strategy, the HPO framework can work as a management development, tool because it focusses on factors that really matter within the finance industry.

Use of own products

The KM strategy underscores the need for knowledge products to be easily accessible and in a user-friendly format. Management must ensure that staff uses the FI's knowledge products in daily operations.

Threats and traps

Managers should avoid falling into the shortcomings of KM because this would render KM useless. The threats are (1) lack of competitiveness and (2) eventually poor performance. The dark side as already discussed includes (a) the competence trap (failure to recognise new ideas for the new challenges), (b) reduced problem solving ability, (c) weak social network (dogmatism and social alienation), and (d) lack of KM objectives for renewing the organisation.

9.5 Five Recommendations

The conceptual model may be simplified to make sense for a variety of entities, such as high, medium, and low performing companies, and for organisations, part of organisations as well as individuals. Simplicity is a prerequisite for comparison between entities in the same framework. If the model is simplified it means that it could be consolidated along the distinction node tree of KM, leading to an overall KM strategy, comparable to other models. Below we provide five recommendations for an adequate development of HPOs in Uganda.

Recommendation 1: we recommend that the scope of the study should be broadened to cover all financial services, so that the HPO factors can be validated for the full range of industries, from process industry to service industry. Further research is recommended to expand this study into other service types.

Recommendation 2: We recommend that managers stimulate an organisational climate in which acquiring, disseminating, and responding to knowledge is encouraged. The FIs can start on a small-scale use of the incremental approach to roll out an HPO framework. Future research should consider the KM model that will manage and integrate indigenous and exogenous knowledge, necessary for sustainable HPOs in the FIs and other sectors.

Recommendation 3: Today's business environment is characterised by a continuous volatile climate that demands a new attitude and approach within organisations; actions must be adaptive and based on a faster cycle of knowledge creation; KM practices must define strategies to make exploits into human know-how to bring maximum return in an organisation. Organisations depend on their ability to accumulate useful knowledge more quickly than their competitors. Therefore, our recommendation reads as follows. One must create the ability in his staff to generate clear, forceful arguments for opposing viewpoints, as well as for their own view points. Open discussion and disagreement must be encouraged so that all sides of an issue will be fully explored.

Recommendation 4: We recommend to the policy makers to establish and entrench a "knowledge culture" within the FIs, and enhance the operational effectiveness of BoU's interventions. The former requires that the FIs take steps to transform into institutions where knowledge can be effectively acquired and used for the purpose of improving quality at the entry, and achieving high performance in the sector. Further, the policy makers should consider a knowledge-based development strategy for all sectors. The policy makers in Uganda should focus on growing service sectors that promote value addition, for example, looking at the FIs from the lowest point of operation.

Recommendation 5: The FIs are recommended to gain competitive advantage by building a high performance culture, create a culture of continuous improvement, the use of PMS

to add to organisational value, and prove it to save time and money on performance management that is embed a culture of high performance.

9.6 Limitations and Suggestions for Future Research

This section aims at citing the eight limitations (subsection 9.6.1) and the five areas for future research (subsection 9.6.2).

9.6.1 Eight Limitations

The findings of this study are subject to some limitations that may provide initiatives for future research. A study of this magnitude could not have been accomplished without methodological limitations. However, efforts had to be made to mitigate them so as to avoid grossly affecting the credibility of the results. We list ten limitations below with a brief argumentation.

Limitations 1: General versus specific

This study focussed on the HPO framework, KM, and high performance, in particular the unexplored concepts in the Ugandan context. Although, there is a stream of literature on these concepts it is generally, based on in the Western countries. The study thus faced a challenge of contextualising the study into the specifics of the Uganda business environment. The drawback was mitigated by findings that reaffirm that the HPO characteristics were tested in many countries and found to apply in all contexts. These were used to pivot our study with confidence.

Limitations 2: Scarcity versus broadening the scope

The FFS in Uganda is still growing and there are still not many institutions in the commercial banking sub-sector. The scarcity was alleviated by broadening the scope and including MDIs in the sampling frame. Still, due to the limited numbers of FIs, sampling techniques could not be carried out easily. At the organisational level we took and used multi-level approaches to reach the respondents among the employees.

The study selected the formal financial sector (FFS). The sector has widely documented experiences, but they are often guarded by managers, who have reservations on releasing what they regard as protected data about their organisations. This potential drawback was lessened by interfacing with the managers to explain the essence of the study, the scope, and how it will contribute to their operations.

Limitations 3: Personal taste

There could be a personal taste in the attribution as is always the case in research based on a questionnaire and self-reported scores. It is possible that the respondents reporting high performance and those reporting low performance make implicit attributions of characteristics, and in fact, causation; for instance, they look for response choices that confirm their view of why the organisation is either high or low performing compared to the peer group.

Limitations 4: Confinement to one sector

Despite the extensive literature search, potentially valuable studies might have been missed out. This study explored the HPO levels in FIs and was therefore confined to one sector of the economy. The study is limited to exploring those factors of HPO in a service type of organisation. The sample for this study was small calling for an expanded finance sector study or a comparison with the public sector. The small sample size may have affected the statistical power of the correlation and regression coefficients since the bigger the sample size, the higher the statistical power.

Limitations 5: Epistemological shortcomings

It is difficult to compare the non-financial performance and the financial of HPOs against their peer groups because non-financial indicators tend to differ per industry. For example, conceptually, high performance is easier to understand in a manufacturing context than in the service sector. (b) Competitiveness is often a primary motivating factor for implementing high performance reforms in the private sector, which may not be the case in the public sector.

Limitations 6: Quantitative and qualitative approach

As observed by Bryman (2007) about mixed methods studies, a common limitation has been the use of qualitative and quantitative approaches in a sequential temporal order, thus limiting the integration of both data forms under a unified process of data analysis. At the stage of analysis of the findings the researcher initially faced a challenge of integrating various data sets, interpreting the findings and fitting them into the study plan. This was overcome through wide consultations with peers on the PhD programme and resource persons in the universities, who extended a hand of guidance.

Limitations 7: Availability of respondents

Due to a poor research culture in Uganda, most managers did not see research as of value and were generally unwilling to spare time to fill in the research instrument. In some cases

this resulted in refusal. The research time table was extended to ensure the intended quality of the research output.

Limitations 8: Cross-sectional vs. longitudinal study

Additionally, we acknowledge that our conclusions are limited in the sense that we can only support our causal relationships with theoretical arguments, as we did not conduct a longitudinal study. For instance, one might also argue that the causal relationship between the KM and high performance may also work in the opposite direction than suggested in our study, as there are fully different arguments in literature that support both directions. For example, Devane and Wilson (2009) argue that knowledge can be viewed as an *abstraction*, or a first order derivative. It is something that cannot be directly observed, rather its effects can be observed. Further, KM can only be cost effective when in the context of systems, measures and a culture that is not dysfunctional (See Kaplan, 2001; Nonaka, 2007; Kjærgaard and Kautz, 2008). However, most studies analyse the financial performance of organisations over a longer period of time and retrospectively identify factors that may have contributed to high performance other than KM.

The study was limited by the design; first, the study was cross sectional focussing on snapshot perceptions which could probably not provide quite realistic occurrences of study variables. This necessitates follow up studies in a longitudinal design to capture the trend of results. Given the cross sectional nature of the study, the researcher could neither discuss nor conclude causality of the HPO framework, KM, and high performance. Therefore the researcher could not claim that changes in the HPO framework, KM, cause changes in high performance. This is most suitable in longitudinal studies.

Nevertheless, this study makes a contribution to research on high performance by (1) developing indicators of high performance (2) highlighting explanatory factors of high performance, (3) revealing the mediation effect of KM between the HPO framework and high performance, (4) revealing that there is no interaction effect of the HPO framework and KM in attaining high performance, (5) exploring and confirming the outcome components of HPO, (6) examining KM processes in the less studied financial sector, and (7) a synthesis of ideas from several sources of literature thus creating a shop centre of literature pertaining to HPOs.

9.6.2 Five Areas for Future Research

In view of the limitations of the research and the choices that always must be made in doing research, for future research are identified. Below, we highlight five potentially fruitful research areas.

1. Integrate indigenous and exogenous knowledge: There is need to determine the KM model that will manage and integrate indigenous and exogenous knowledge necessary for sustainable HPOs in the FIs and other sectors.
2. Study the causes of the changes: Our approach to KM is inherently a "snapshot in time" of the KM situation and does not provide information on the transformation of one KM process into another. We see the end result but we do not know the cause of these changes. In order to understand the cause of these changes, we need to introduce an approach that takes into account the flows between different KM processes. Replication of the study in other institutional contexts is particularly necessary given the emphasis that Godard (2010) places on the institutional context.
3. Study the UFI model for HPO in other Sub saharan countries: The proposed UFI model for HPO should be tested against other existing KM and HPO models, in a specific context such as the rest of the sub Saharan Africa. The linkages between KM processes, Waal's HPO framework, and other KM enablers, such as culture should be investigated to enhance competencies, and to make the suggested model be more robust than in the present case.
4. Construct a general UFI model for HPO for developing countries: The UFI model for HPO proposed in this study is expected to stimulate discussion and further theoretical and empirical studies, with the aim of constructing a comprehensive and universal model of KM and high performance for FIs in developing countries.
5. Perform a longitudinal study: A longitudinal study that gathers a combination of primary and secondary data over several time periods may provide some advantages for following changes in the level of performance. Therefore, we suggest future longitudinal research which combines an analysis of developed and developing countries. Although a first attempt is made in this study for understanding the impact of the HPO framework and the human-related processes of KM and high performance, it should be noted that we considered the basic KM processes and the strategies. More processes related to KM (i.e., the impact of creation and utilisation, storage, and retrieval, etc.) could be examined in more detail and tested in different industries and in different countries in future studies in order to have a better understanding of the underlying mechanisms.

References

Abrahamson, E. (2004). Avoiding repetitive change syndrome. *MIT Sloan Management Review, 45(2),* 93-5.

Acock, A. C. (2005). Working With Missing Values. *Journal of Marriage and Family, 67,* 1012–1028.

Acur, N., Kandermir, D., & Boer, H. (2012). Strategic alignment and new product development: drivers and performance effects, *Journal of Product Innovation Management*, 29(1), 304-318. 2012.

Adenfelt, M., & Lagerstrom, K. (2008). The development and sharing of knowledge by Centres of Excellence and transnational terms: A Conceptual framework. *Management International Review, 48(3),* 319-338.

Afande, O. F. (2013). Effects of strategic management practices on performance of financial institutions in Kenya: A case of Kenya Post Office Savings Bank. *International Journal of Business Management and Administration, 2(6),* 122-141. Available online at http://academeresearchjournals.org/journal/ijbma.

Agumba, J., & Fester, N. (2010). Participation in formal mentoring programme in South African construction industry: A perspective of new knowledge workers. *African Journal of Business Management, 4(10),* 1954-1963.

Ahmad, A., & Chopra, D.P. (2004). *Passion to Win.* Excel Books Private Ltd., New Delhi.

Akullo, D., Kanzikwera, R., Birungi, P., Alum, W., Aliguma, L., & Barwogeza, M. (2007). Indigenous Knowledge in Agriculture: A case study of the challenges in sharing knowledge of past generations in a globalised context in Uganda. Paper presented at 73rd IFLA General Conference and Council, Durban, 19-23 August 2007.

AlAmmary, J., & Fung, C. C. (2008). Knowledge Management Strategic Alignment in the Gulf Cooperation Council Countries. *The Electronic Journal of Knowledge Management, 6(2),* 75-84.

Alavi, M., & Leander, D. (2001). Knowledge Management and Knowledge Management Systems: Conceptual Foundations and Research Issues. *MIS Quarterly, 25(1)*, 107-176.

Algorta, M., & Zeballos, F. (2011). Human resource and knowledge management: Best practices identification. *Measuring Business Excellence, 15(4),* 71-80.

Ali, H. M., & Ahmad, N. H. (2006). Knowledge Management in Malaysian Banks: A new paradigm. *Journal of Knowledge Management Practices*, 7(3).

Allen, K. R. (2009). Redesigning Your Organisation for High Performance. The Center for Organisational Design. *Http://www.centerod.com*.

Alstete, J. W. (2007). An assessment of knowledge growth stages in organisations. *Knowledge Management Research & Practice, (5),* 54-63.

Alvarenga, J. L. G. (2011). Building a Knowledge Management Model. *Journal of Knowledge Management & Organisational Learning,* ICICKM2011.

Amaratunga, D., & Baldry, D. (2001). Case study methodology as a means of theory building: performance measurement in facilities management organisations. *Work Study. 50(3),* 95-105.

Ambrosini, V., & Bowman, C. (2009). What are dynamic capabilities and are they a useful construct in strategic management? *International Journal of Management Reviews, 11(1),* 29-49.

American Management Association (2007). How to build a HPO-A global study of current Trends and Future Possibilities, 2007-2017.

REFERENCES

Anastasi, A. (1982). *Psychological Testing*. New York: Macmillan Publishing Co. Inc.

Anderson, J. C., & Gerbing, D.W. (1988). Structural equation modelling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103(3),* 411- 423.

Andreava, T., & Kianto, A. (2012). Does knowledge management really matter? Linking knowledge management practices, competitiveness and economic performance. *Journal of Knowledge Management,* 16(4), 617-621.

Anslinger, P., & Breene, T. (2004). Measuring High Performance. *Outlook 2004, (1),* 22-27. www.accenture.com/Outlook.

Appelbaum, E., Bailey, T., Berg, P., & Kalleberg, A. (2000). *Manufacturing advantage: why high-performance work systems pay off*. Ithaca: Cornell University Press.

Arevuo, M. I. (2004). Taxonomies: frameworks for corporate knowledge (review). *Inside Knowledge,* 7(10).

Argote, L., McEvily, B., & Regans, R. (2003). Introduction to the special issue on Managing Knowledge in organisations: Creating, retaining, and transferring knowledge. *Management Science, 49(4).*

Armstrong, M. (2009). High-performance Work Systems. In M. Armstrong, *Handbook of Human Resource Management Practice (11th ed.*). United kingdom: Kogan Page Limited. Bagshaw. (2000). *Industrial Commercial Training, 32(5),* 179-182.

Available from: http//faculty,chass.edu/garson/PA765/regree.htm, (Accessed 18 December 2011).

Aydin, B., & Ceylan, A. (2009). The role of organisational culture on effectiveness. *E+M Ekonomie a Management, 3,* 33-49.

Bagheri, H. B., Montali, D. M., & Paolo, F. (2012). Verification of description logic Knowledge and action Bases. In the Proceedings of the 20th European Conference on Artificial Intelligence (ECAI 2012), 103–108.

Bagheri, M. M., Hamid, A. B. A., Soltani, I., Mardani, A., & Soltan, E. K. H. (2013). The Role of Supply Chain Antecedents on Supply Chain Agility in SMEs: The Conceptual Framework. *Journal Teknologi*, *66(1),* 53-60.

Bagire, V., Byarugaba, J., & Kyogabiirwe, J.B. (2015).Organizational meetings: management and benefits, *Journal of Management Development,* 34(8), 960 - 972.

Bagorogoza, J. K., & Waal, A.A. (2010). The role of knowledge management in creating and sustaining high performance organisations: The case of financial institutions in Uganda. *World Journal of Entrepreneurship, Management and Sustainable Development, 6(4),* 307–324.

Bagorogoza, J. K., Waal, A.A., Van den Herik, H. J., & Van de Walle, B.A. (2013). A critical Assessment of the HPO framework in the Ugandan Finance sector. *Botswana Journal of Business, 6(1),* 1-16.

Bagorogoza, J. K., Waal, A.A., van den Herik, H. J., & van de Walle, B. A. (2012). The applicability of the high performance framework in Africa: The case of financial institutions in Uganda. *Journal of Multidisciplinary Management studies, 2(1),* 40-59.

Bailey, C., & Clarke, M. (2000). How do managers use knowledge about knowledge Management? *Journal of Knowledge Management, 4(3).*

Baird, M. (2002). Changes, Dangers, Choice and Voice: Understanding What High Commitment Management Means for Employees and Unions. *The Journal of Industrial Relations*, *44(3),* 359-375.

Balakrishnan, R., Sivaramakrishnan, K., & Sunder, S. (2004). A Resource Granularity Framework for Estimating Opportunity Costs. The Accounting Horizons, *18(3),* 197-206.

Bandura, A. (2006). Toward a psychology of human agency. *Perspectives on Psychological Science, 1*, 164-180.

Bank of Uganda, (2012). Financial Stability Report.

Bank of Uganda, Annual Supervision Report. December 2013/Issue No. 2.

Bankof Uganda Annual Supervision Report. December 2010/No. 2.

Barney, J. B. (1991). Types of Competition and the Theory of Strategy: Toward an Integrative. *Academy of Management Review, 11(4),* 791-800.

Barney, J. B. (1995). Looking inside for Competitive Advantage. *Academy of Management Executive, 9(4),* 49-62.

Barney, J. B. (2001a). Resource-based theories of competitive advantage: a ten-year retrospective on the resource-based view. *Journal of Management, 27(6),* 643-650.

Barney, J. B., & Clark, D. N. (2007). *Resource Based Theory: Creating and sustaining competitive advantage.* Oxford University Press, Oxford.

Barney, J.B., & Hesterly, (2010). *Strategic management and competitive advantage: concepts and cases*. 3rd Edition, Prentice Hall, New Jersey. 2010.

Baron, R. M., & Kenny, D. A. (1986). The Moderator–Mediator Variable Distinction in Social Psychological Research: Conceptual, and Strategic and Statistical consideration. *Journal of Personality and Social psychology, 51(6),* 1173-1182.

Barroso, C., Cepeda, G. A., & Roldan, J. L. (2010). Applying Maximum Likelihood and PLS on different Sample Sizes: Studies on SERVUAL Model and Employee Behaviour Model. In Esposito Vinzi, Chin, Henseler & Wang (Eds). *Handbook of Partial Least Squares: Concepts, Methods and Innovation. Creativity and Management, 14(2),* 169-175.

Bazeley, P., & Richards, L. (2000). *The Nvivo qualitative project book*. London: Sage.

Beck, T., & Hesse, H. (2009). Why are interest spreads so high in Uganda? *Journal of Development Economics, 88,* 192-204*.*

Beck, T., Buyukkarabacak, B., Rioja, F., & Neven, V. (2012). Who Gets the Credit, and does it Matter? Household vs. Firm Lending Across Countries, *B.E. Journal of Macroeconomics, 12*.

Becker, B. E., & Huselid, M. A. (1998). High performance work systems and firm performance: A synthesis of research and managerial implications. In *Research in Personnel and Human Resource Management,16,* 53-101.

Becker, B.E., & Huselid, M. (2003). Measuring HR? Benchmarking Is Not the Answer. *HR Magazine*, December 2003, pp. 58.

Bennett, J. A. (2000). Mediator and moderator variables in nursing research: Conceptual and statistical differences. *Research in Nursing & Health*, *23(5),* 415-420.

Berdine, M., Parrish, E., Cassill, N. L., & Oxenham, W. (2008). Measuring the Competitive Advantage of the US Textile and Apparel Industry. Industry Studies. Annual Conference, May 1-2, 2008 Boston, MA.

Berg, C., & Muhairwe, W.T. (2007). Healing an Organisation: High performance lessons from Africa.

Bergsma. W., & Hagenaars, J. A. (2009). *Marginal Models for Dependent, Clustered, and Longitudinal Categorical Data.* (Springer Verlag, 2009).

Bharadwaj, A. (2000). A Resource Based Perspective on Information Technology and Firm Performance: An Empirical Investigation, *MIS Quarterly*, 24(1), 169-196.

Birasnav, M., & Rangneker, S. (2010). Knowledge management structure and human capital development in India manufacturing industries. *Business Process Management Journal, 16(1),* 57-75.

Birkinshaw, J. M., & Goddard, J. (2009). What is your Management Model? *Sloan Management Review*, 50(2), 81-90.

Blanchard, K. (2006). Elements of Top Performance. *Leadership Excellence*, *23(12),* 4-4. Retrieved August 29, 2010, from Business Source Complete database.

Blanke, J. (2007). Assessing Africa's competitiveness in an International context: *World Economic Forum.*

Bogner, W. C., & Bansal, P. (2007). Knowledge Management as the Basis of Sustained High. Performance, *Journal of Management Studies, 44(1),* 165–188.

Bontis, N. (1998). Management Decision, Intellectual Capital: An exploratory study that develops measures and models. *Journal of intellectual capital, 36(2),* 63-76.

Bontis, N. (2002). There is a price on your head: managing intellectual capital strategically. *Business Quarterly, summer,* pp. 40–47.

Botha, E., & Myers, M. (2005). Towards an instrument for surveying knowledge management practices. *South African Journal of Business Management.*

Bowerman, S., & O'Connel, P. (1990). Solving Multicollinearity in Process of fitting Regression. www.spring link.com/index/j58255505450u607.pdf.

Bowman, D., Farley, J.U. and Schmittlein, D.C. (2000), Cross-national empirical generalization in business services buying behavior, *Journal of International Business Studies*, 31(4), 667-685.

Bringer, J. D., Johnston, L. H., & Brackenridge, C. H. (2004). Maximizing transparency in a doctoral thesis: The complexities of writing about the use of QSR*NVIVO within a grounded theory study. *Qualitative Research, 4(2),* 247-265.

Brink, H. (2006). *Fundamentals of research methodology for health care professionals*. (Revised by C. Van der Walt. & G. Van Rensburg). (2nd Ed.). Cape Town.

Brown, J. N. (2004). High performance work practices and Human resource management effectiveness: Substitutes or complements? *Journal of Business Strategies.*

Broyles, D., Beims, J., Franko, J., & Michelle Bergman, M. (2005). Just-In-Time Inventory Management Strategy & Lean Manufacturing. *Business Operations Management,*

Bryman, A. (2007). Barriers to Integrating Quantitative and Qualitative Research. *Journal of Mixed Methods Research, 1(1),* 18-22.

Busi, M., & Bititci, U.S. (2006). Collaborative performance management: present gaps and future research. *International Journal of Productivity and Performance Management, 5(1/2),* 7-26.

Buytendijk, F. (2006). The Five Keys to Building a High-Performance Organisation. *Business Performance Management*, *4(1)*, 24-30.

Bwire, T., & Musiime, A. (2008). Financial development-Ecomonic Growth Nexus.Empirical evidence from Uganda. *African Economic Research Consortium Workshop.*

Byounggu, C., Simon, K.P., & Davis, J. D. (2008). Effects of knowledge management strategy on organisational performance: A complementarily theory-based approach. *Knowledge Management and Organisational Learning, 26(2),* 235-251.

Byrne, B. (2004). Qualitative interviewing in C. Seale (Ed) *Researching society and Culture (*2nd Ed*.)* (pp. 179-192). London: Sage.

Cabrita, M., Vaz, J., & Landeiro, (2006). Intellectual capital and Value Creation: Evidence from the Portuguese Banking Industry. *The Electronic Journal of Knowledge Management, 4(1),* 11-20.

Cadez, S., & Guilding, C. (2008). An exploratory investigation of an integrated contingency model of strategic management accounting. Accounting, Organisations and Society, 33(7/8), 836–863.

Cape, P. (2010). Questionnaire Length, Fatigue Effects and Response Quality Revisited. Paper presented at ARF Re: think.

Carbonell, P., Ana I., & Rodríguez Escudero. (2010). The effect of market orientation on innovation speed and new product performance. *Journal of Business & Industrial Marketing, 25(7),* 501-513.

Carcary, M. (2009). The Research Audit Trial–Enhancing Trustworthiness in Qualitative Inquiry. *Electronic Journal of Business Research Methods, 7(1),* 11-24.

Carcary, M. (2011). Evidence Analysis Using CAQDAS: Insights from a Qualitative Researcher. *Electronic Journal of Business Research Methods, 9(1),* 10-24. *Available online at www.ejbrm.com.*

Cardoso, L., Meireles, A. & Peralta, C.F. (2012). Knowledge management and its critical factors in social economy organisations. Journal of knowledge management, *16(2),* 267-284.

Cardoso, L., Meireles, A., & Peralta, F. (2012). Knowledge management and its critical factors in social economy organisations. *Journal of Knowledge Management, 16(2).*267-284.

Carlos, B. J., & Segarra, C. M. (2006) Strategic knowledge transfer and its implications for competitive advantage: an integrative conceptual framework. *Journal of knowledge management, 10(4)*, 100-112.

Carmeli, A., & Tishler, A. (2004). The relationships between intangible organisational elements and organisational performance. *Strategic Management Journal, 25:* 1257–1278.

Carton, R. B. (2004).Measuring organisational performance: an exploratory study.

Casselman, R. M., & Samson. D. (2007). Aligning Knowledge Strategy and Knowledge Capabilities. *Technology Analysis & Strategic Management, 19(1),* 69–81.

Cedar, (2003). How Knowledge Management, Drives Competitive Advantage. *Cedar white paper*, released December, Maryland, USA.

Chaminda, P., Pathirage, D.G., Amaratunga, R., & Haigh, P. (2007). Tacit knowledge and organisational performance: construction industry perspective, *Journal of Knowledge Management, 11(1),* 115-126.

Chang, L., K., Lee, S., & Kang, I.W. (2005). KMPI: measuring knowledge management performance. *Information & Management, 42(3),* 469–482.

Chenhall, R. H., & Langfield-Smith, K. (2007). Multiple perspectives of performance measures. European Management Journal, 25*(4),* 266–282.

Chin, W. W., Marcolin, B., & Newsted. P. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information Systems Research, 14(2)* 189–217.

Chinho, L., & Shu-Mei, T. (2005). The implementation gaps for the knowledge management system. *Industrial Management & Data Systems, 105(2),* 208–222.

Chong, C.W., Chong, S. C., & Heng, P.Y.P. (2006). Knowledge management Implementation in Malaysian telecommunication Industry; An empirical analysis.*Industrial Management & Data Systems, 106(8),* 1112-1132.

Chong, H.Y. (2008). Multicollinearity variance inflation and Othogonalisation in regression. *Journal of Statistical Models, 2(3),* 31-35.

Chong, S. C., & Choi, Y. S. (2005). Critical factors in the successful Implementation of Knowledge management. *Journal of knowledge Management Practice, 6*.

Christensen, P. (2007). Knowledge Sharing: moving away from obsession with best practices. *Journal of Knowledge Management, 11(1),* 36-47.

Chuang, & Shu-Hui. (2004). A resource-based perspective on knowledge management capability and competitive advantage: an empirical investigation. *Expert Systems with Applications, 27(1),* 459–465.

Clarke, J., & Turner, P. (2004). Global competition and the Australian biotechnology industry: developing a model of smes knowledge management strategies. *Journal of knowledge and Process Management,11(1),* 38-46.

Cohen, W, & Levinthal, D. (1990). Absorptive capacity: a new perspective on learning and innovation. *Administrative Science Quarterly, 35(1),* 128–152.

Collins, C. J., & Smith, K. G. (2006). Knowledge exchange and combination: The role of human resource practices in the performance of high-technology firms. Academy of Management Journal,

Collins, J. (2001). *Good to Great*: *Why Some Companies Make the Leap and Others Don't*, Harper-Business, New York.

Collins, J.C., & Porras, I. (1996). *Built to Last: Successful Habits of Visionary Companies*. Harvard business review.

Collis, D. J, & Montgomery, C. (1995). Competing on resources: strategy in the 1990s. *Harvard Business Review*, *73(4),* 118–128.

Colvin, G. (2009). *The Upside of the Downturn, 10 Management Strategies to prevail In the recession and thrive in the aftermath.* Nicholas Brealey Publishing, London*.*

Combs, T., James, G., Russell, C., Christopher, L., & Shook., (2005). The Dimensionality of Organisational Performance and its Implications for Strategic Management Research, in David J. Ketchen, *Building Methodological Bridges.*

Cooper, D. R., & Schindler, P. S. (2008). *Business Research Methods*. McGraw-Hill/Irwin.

Costigan, R.D., Insinga, R.C., Berman. J. J., Ilter, S.S., Kranas, G., & Kureshov, V.A. (2005). An examination of the relationship of a Western performance-management process to key workplace behaviours in transition economies, *Canadian Journal of Administrative Sciences*, 22(3), 255-267.

Cowles, D. L., Kiecker, P., & Little, M. W. (2002). Using Key Informant Insights as a Foundation for E-retailing Theory Development. *Journal of Business Research, 55:* 629-636.

Crabtree, A. D., & DeBusk, G. K. (2008). The effects of adopting the balanced scorecard on shareholder returns. *Advances in Accounting, 24(1),* 8–15.

Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research.* Upper Saddle River, N J: Pearson.

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, N.J: Prentice Hall.

Cronbach, L. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16(3),* 297-334.

Crotty, M. J. (2007). *The foundations of social research: Meaning and perspective in the research process.* CA: Sage Publications.

Curado, & Carla, (2006**)**. The Knowledge Based-view of the Firm: from Theoretical Origins to future Implications. *Working Paper, 1/2006.*

Danenberg, Willy. (2010). Building a High-Performance Organisation Home. // Barrett Values Centre Team //.

Danford, A., Richardson, M., Stewart, P., Tailby, S., & Upchurch, M. (2004). High Performance Work Systems and Workplace Partnership: A Case Study of Aerospace Workers. *New Technology, Work and Employmen*t, *19(1),* 14-29.

Darroch, J. (2003). Developing a measure of Knowledge management Behaviours and practices. *Journal of Knowledge Management, 7(5),* 41–54.

Darroch, J. (2005). Knowledge management, innovation and firm performance. *Journal of Knowledge management, 9(3),* 101-115.

Darroch, J., & McNaughton, R. (2001). *Developing a measure of knowledge management.* In: Bontis, N. (Ed), Organisational intelligence: the cutting edge of intellectual capital and knowledge management. Boston, MA: Butterworth-Heinemann/EMCI Press, pp. 210-222.

Darroch, J., & McNaughton, R. (2002). Examining the link between knowledge management practices and types of innovation. *Journal of intellectual Capital, 3(3),* 210-222.

Davenport, T. H., & Prusak, L. (2000). Working knowledge: How organisations manage what they know. Harvard Business Press.

Dawes, J. (2008). Do Data Characteristics Change according to the Number of Scale Points Used? An experiment using 5-point, 7-point and 10-point scales. *International Journal of Market Research, 50(1).*

Decarolis, D. M., & Deeds, D. L. (2006). The impact of stock and flows of organisational knowledge on firm performance: an empirical investigation of the biotechnology industry. *Strategic Management Journal, 20(7),* 953-968.

Devane, S., & Wilson, J. (2009). Business benefits of non-managed knowledge. *The Electronic Journal of Knowledge Management, 7(1)* 31-40, available online at www. ejkm.com.

Devinney, T. M., Richard, P.J. Yip. G.. & Johnson. G. (2005). Measuring organisational performance in management research: A synthesis of measurement challenges and approaches. Unpublished working paper.

Dodge, J., Ospina, S. M., & Foldy, E. G. (2005). Integrating rigor and relevance in public Administration scholarship: The contribution of narrative inquiry. *Public Administration Review, 65(*3), 286-300.

Donald, D., & Bergh, K. J. (2011). *Research Methodology in Strategy and Management.* Emerald Group Publishing Limited, *2*, 259-286.

Duncan, S., & Harrop, A. (2006). A user perspective on research quality. *International Journal of Social Research Methodology. 9(2*), 159–174. Available online at 10.1080/13645570600595462.

Dunn, (2002). *Financial Statements-their Use fullness, and the Use*r. (2nd Ed.). Pitman Publishing, London.

Dutta, S. Narasimhan, O., & Rajiv, S. (2005). Conceptualizing and measuring Capabilities: methodology and empirical application. *Strategic Management Journal, 26*: 277–285.

Earl, M. (2001). Knowledge Management Strategies: Toward Taxonomy. *Journal of Management Information Systems, 18(1),* 215-233.

Easterby-Smith, M., Lyles, M. A., & Peteraf M. A. (2009). Dynamic capabilities: Current debates and future directions. *British Journal of Management,* 20: S1-S8.

Eisenhardt, K. & Martin, J. (2000). Dynamic capabilities: what are they? *Strategic Management Journal*, *21*, 1105–1121.

El-Bannany, M. (2008). A study of determinants of Intellectual Capital Performance in Banks: the UK Case. *Journal of Intellectual Capital, 9(3),* 487-498.

Elenkov, D. S, Judge, W., & Wright, P. (2005). Strategic Leadership and Executive Innovation Influence: an International Multi-cluster Comparative study. *Strategic Management Journal, 26*, 665-682.

Ellsworth, R. R. (2002). *Leading with Purpose: The New Corporate Realities***.** Stanford University Press.

Epstein, (2004). The Drivers and Measurements of success in High Performance Organisations. *Performance measurement and management control, 14*, 3-18.

Esposito, Vinzi, V., & Russolillo, G. (2011). *Partial least squares path modeling and regression*, in: E. Wegman, Y. Said and D. Scott (eds.) Wiley Interdisciplinary Reviews: Computational Statistics, John Wiley and Sons.

Ethiraj, S. K, Prashant, Krishinan, K. M. S., & Singh, J. V. (2005). Where do capabilities come from and how do they matter. A study in the software services industry. *Strategic Management Journal, 26,* 25-45.

Evans, J. R. (2004). An exploratory study of performance measurement systems and relationships with performance results. Journal of Operations Management, 22*(3),* 219–232.

Farnham, D. (2010). *Human Resource Management in Context*, (3rd Ed.). CIPD.

Farris, P. W., Neil, T., Bendle, Phillip, E. Pfeifer, D. J., & Reibstein. (2010). *Marketing Metrics: The Definitive Guide to Measuring marketing Performance*. Upper Saddle River, New Jersey: Pearson Education, Inc.

Field, A. (2009). *Discovering Statistics Using SPSS*, (3nd Ed.). Prentice, Sage Publications, London.

Firestone, J. M., & Mcelroy, M. W. (2003). *Key Issues in the New Knowledge Management.* Butterworth-Heinemann, Woburn, MA.

Flamini, V., McDonald, C., & Schumacher, L. (2010). The Determinants of Commercial Bank Profitability in Sub-Saharan Africa, *IMF Working Paper, African Department.*

Foss, N., Laursen, K., & Pedersen, T. (2010). Linking customer interaction and innovation: the mediating role of new organisational practice. *Organisation Science,* 1-20.

Freeman, & Zollo. (2009). Re-thinking the firm in a post-crisis world. Special issue-call for papers, *European Management Review.*

Gao, F. M. (2008). Knowledge, management, and knowledge management in business operations. *Journal of Knowledge Management, 12(2),* 3-16.

Gao, Y. & Riley, M. (2010). Knowledge and identity: A review. *International Journal of Management Reviews*, *12(3),* 317-334.

Garson, G.D. (2010). Multiple Regression.

Ghobadi, S., & D'Ambra, J. (2012). Knowledge sharing in cross-functional teams: a competitive model. *Journal of Knowledge Management*, *16(2),* 285-301.

Gibbs, G. R. (2002). *Qualitative data analysis: Explorations with N-Vivo*. Buckingham: Open University Press.

Gitman, L. J., & Joehnk, M. D. (2005) *Fundamentals of investing,* (9th Ed.) Upper SaddleRiver, NJ: Pearson Education International.

Gitman, L. J., & Zutter, C. J. (2012). *Principles of managerial finance,* (13th Ed.). San Diego: Prentice Hall.

Glaister, K. W., & Buckley, P. J. (1998). Measures of Performance in UK International Alliances. Organisation Studies *January, 19(1),* 89-118.

Godard, J. (2004). Acritical assessment of the high-performance paradigm. *British Journal of Industrial Relations, 42(2),* 349-78.

Godard, J. (2010). What is best for workers? The implications for workplace and human resource management practices revisited. *Industrial Relations, 49(3)*, 406.

Grant, R. (1996). Prospering in dynamically-competitive Environments: Organisational Capability as Knowledge Integration. *Organisational Science, 7(4),* 375- 387, 7 -16.

Grant, R., Kogut B., Zander, U., & Nonaka, I. (1996). Retrieved from http: //www.ir.berkeley.educ/cohre/grant.htm.

Green, A. (2006). Knowledge Valuation: building block to a knowledge valuation System (KVS). *Journal of Knowledge Management systems, 41(3),* 125-45.

Green, K. W., Wu, C., Whitten, D., & Medlin, B. (2006). The impact of strategic human resource management on firm performance and HR professionals' work attitude and work performance.

Grobler, P. A, Warnich, S, Carre, M. R, Elbert, N F., & Hatfield, R. D. (2006). Human resources management in South Africa. *Australia: Thompson Learning*.

Guan Gan, G. G., Charmaine, R., & Gururajan, R. (2006). The effects of culture on knowledge management practice: a qualitative case study of MSC status companies. *Kajian Malaysia,* Vol. XXIV, No. 1 & 2.

Gunawan, A. (2012). *Information Access for SMEs in Indonesia. A Study on the Business Performance of Garment Manufacturers*. Ph.D. Thesis.: Tilburg University Tilburg, the Netherlands.

Gunawan, A., van den Herik, H. J., Wahdan, M. A., & Van de Walle, B. (2012). *Managerial Decisions in Garment Industry,* Paper presented at the International Conference on International Business 2012, Thessaloniki, Greece.

Gunawan, A., Wahdan, M. A., & van den Herik, H. J. (2010b). Increasing the managerial capabilities in Indonesian garment manufacturing. *International Journal Economic Policy in Emerging Economies, 3(4),* 346–367.

Guriting, P., & Ndubisi N. O. (2006). Borneo online banking: Evaluating customer perceptions and behavioural intention. *Management Research News, 29(1/2*), 6-15.

Gurteen, D. (2010). A process view of knowledge management: it ain't what you do, it's the way that you do it. *Knowledge Community.* UK. *11th European Conference on Knowledge Management-ECKM 2010.*

Hair, J. K., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis.*(5th Ed.). Prentice Hall, London.

Hair, Joe F., Sarstedt, M., Christian, M. Ringle, Jeannette, A., & Mena. (2011). An assessment of the use of partial least squares structural equation modeling in marketing research. *Academy of Marketing Science, 40,* 414–433.

Halawi, L., Aronson J., & McCarthy, R. (2005). Resource-Based View of Knowledge Management for Competitive Advantage. *The Electronic Journal of Knowledge Management, 3(2)*, 75-86, available online at www.ejkm.com.

Han, K. H., & Park, J. W. (2009). Process-centered knowledge model and enterprise ontology for the development of knowledge management system. *Expert Systems with Applications,* pp 7441–7447.

Handzic, M., Lagumdzija, A., & Celjo, A. (2008). Auditing knowledge management practices: model and application. *Knowledge Management Research & Practice, 6(1),* 90-99.

Harlow, H. (2008). The effect of tacit knowledge on firm performance. *Journal of Knowledge Management, 12(1*), 148–163.

Harmon, J., Scotti, D., & Behson, S. (2003). Effects of High-Involvement Work System s on Employee Satisfaction and Service Costs in Veteran Healthcare. *Journal of Health Management, 48(16),* 393-418.

Harris, A. (2006). Leading change in schools in difficulty. *Journal of Educational Change,* 7, 9-18.

Harvey, J. (2004). Compliance and reporting issues arising for financial institutions from money laundering regulations: a preliminary cost benefit study. *Journal of Money Laundering Control, 7(4),* 333–346.

Haslam, S. A., Reicher, S.D., & Platow, M. J. (2011). *The new psychology of leadership: Identity, influence and power*. Psychology Press, London & New York.

Haslam, S., Alexander, S., Reicher, D., & Platow, M. J. (2011). *The New Psychology of Leadership*. New York: Psychology Press.

Hasty, B., Massey, A., & Brown, S. (2006). Role-based experiences, media perceptions, and knowledge transfer success in virtual dyads. *Group Decision Negotiation*, *15(4),* 367-3S7.

Heaton, J. (2004). *Reworking qualitative data*, London: Sage Publications Limited.

Helfat, C. E., & Peteraf, M. A. (2009). Understanding dynamic capabilities: progress along a developmental path. *Strategic Organisation, 7(1),* 91-102*.*

Henri, J. F. (2006). Management control systems and strategy: A resource-based perspective. Accounting, Organisations and Society, 31(6*),* 529–558.

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modelling in international marketing. *Advances in international marketing, 20*, 277-319.

Hess, E. D., & Kazanjian, R. K. (2006). *The Search for Organic Growth.* Cambridge University Press: New York.

Hislop, D. (2013). *Knowledge management in organisations: A critical introduction*. (3rd Ed.). Oxford, New York: Oxford University Press.

Ho, C. (2009). The relationship between knowledge management enablers and performance. *Industrial Management and Data Systems, 109(1),* 98-117.

Hofstede, G. (1980). *Culture's Consequences: International differences in work-related values*, Thousand Oaks: Sage Publications.

Holbeche, L. (2005). *The High Performance Organisation: Creating dynamic stability and sustainable success.* John Wiley & Sons, Ltd.

Holsapple, C. W. (2005). The Inseparability of Modern Knowledge Management and Computer-Based Technology. *Journal of Knowledge Management, 9(1),* 42-52.

Holtshouse, D. (1998). Knowledge research issues. *California Management Review*, *40(3)*, 277-80.

Honohan, P., & Beck, T. H. L. (2007). Making finance work for Africa, Open Access publications from Tilburg University urn:nbn:nl:ui: 12-3125420, Tilburg University.

Hoopes, D. G., Madsen, T. L., & Walker, G. (2003). Why is there a resource-based view? Toward a theory of competitive heterogeneity. *Strategic Management Journal, 24:* 889–02.

Horgan, J., & Muhlau, P. (2006). Human resource systems and employee performance in Ireland and the Netherlands: A test of the complementarity hypothesis. *International Journal of Human Resource Management*, *17,* 414-439.

Hoyle, R. H., & Kenny, D. A. (1999). Statistical power and tests of mediation. In R. H. Hoyle (Ed.),

Hsing-Er, Lin. (2009). The Impact of Senior Leadership and Organisational Culture on Innovation in Taiwanese Companies. DBA Dissertation. Maastricht School of Management, Maastricht.

Huang, C. C. (2009). Knowledge sharing and group cohesiveness on performance: An empirical study of technology R&D teams in Taiwan, Technovation, *29*, 786-797.

Huang, L., Quaddus, M., Rowe, A. L., & Lai, C. (2010). An investigation into the Factors affecting Knowledge Management adoption and practice in the life Insurance Business. *Knowledge Management Research & Practice, 9,* 58-72.

Huang, T. T. Chen, L., & Stewart, R. A. (2010). The moderating effect of knowledge sharing on the relationship between manufacturing activities and business performance. *Knowledge Management Research & Practice*, *8(4),* 285-306.

Huang, Y. (2010). *Determinants of Financial Development*. Palgrave Macmillan, UK.

Hung, Y. C., Huang, S. M., Lin, Q. P., & Tsai, M. Y. (2005). Critical factors in adopting a knowledge management system for the pharmaceutical industry. *Industrial Management & Data Systems, 105(2),* 164-183.

Huselid, M. A. (1996). The impact of human resource management practices on turnover, productivity, and corporate financial performance, *Academy of Management Journal, 38(3),* 635–672.

Huselid, M. A., & Becker, B. E. (2011). Bridging micro and macro domains: Workforce differentiation and strategic human resource management. *Journal of Management, 37*(*2*), 421-428.

Hyvönen, J. (2007). Strategy, performance measurement techniques and information technology of the firm and their links to organisational performance, *Management Accounting Resource, 18(30*, 343-366.

Ibeh, Kevin, I. N. (2005). Aspects of the Internationalization Process in Smaller Firms, MIR: *Management International Review*, *45(3),* 59-81.

Ishengoma, E. K., & Kappel, R. (2011). Business Environment and Growth Potential of Micro and Small Manufacturing Enterprises in Uganda. *African Development Review 08/2011. 23*(3), 352-365.

Islam, Z., Mahtab, H., & Zainal, A. A. (2007). The role of knowledge management practices on organisational context and organisational effectiveness. *ABAC Journal, 28(1),* 42-53 (January-April).

Ittener, C. D. (2008). Does measuring intangibles for management purposes improve performance? A review of the evidence. *Accounting & Business Research, 38(3),* 261-272.

Ittner, C. D., & Larcker, D. F. (2009). Extending the boundaries: Non-financial performance measures, *In:* Chapman, C.S., Hopwood, A.G., & Shields, M.D. (Eds.), *Handbook of management accounting research*, Elsevier Science, Oxford, pp. 1235–1251.

Jamrog, Jay J., Vickers, M.; Overbolt, Miles, H; Morrison., & Carol, L. (2008). High-Performance Organisations: Finding the Elements of Excellence, Magazine article from. *People & Strategy*, *31(1).*

Jansen, J. J. P., & Lyles, A. M. (2008). Inter-Intra Organisational Knowledge Transfer: A Meta-Analytic Review and Assessment of its Antecedents and Consequences. *Journal of Management Studies, 45(4).*

Jing, F.F., & Avery, G.C. (2008). Missing Links in Understanding the relationship between Leadership and Organisational Performance. *International Business & Economics Research Journal, 7*(5) 67-78.

John, S.V. (2009). Likert scales: Dispelling Confusion www.ourworld. Compuserve.com/ *14(3),* 260-286.

Johnson, J. M. (2002). In-depth interviewing. In *Handbook of interview research: context and method,* (ed. J. A. Gubrium and J. A. Holstein), pp. 103-120. Sage Publications, London.

Johnson, S., & Nino-Zarazua, M. (2011). Financial Access and Exclusion in Kenya and Uganda. *Journal of Development Studies, 47(3),* 475-496*.*

Jose, P. E. (2008). Welcome to the Moderation/Mediation Help Centre. Victoria, University of Wellington, Wellington, New Zealand.

Jose, P. E. (2013). *Doing Statistical Mediation and Moderation (Methodology in the Social Sciences).* (1st ed.), 72 Spring Street, Guilford Press, New York, NY.

Jung, D. I, Wu, A., & Chow, C. (2008). Towards understanding the direct and indirect effects of CEO's transformational leadership on firm innovation. *The Leadership Quarterly, 19(5),* 582-594.

Kakeeto, N. T. (2012). *Relationship Marketing for SMEs in Uganda*. Phd. Thesis. Tilburg, the Netherlands: Tilburg University.

Kakeeto-Aelen, T. N., van Dalen, J., van den Herik, H. J., & Van de Walle, B. (2011). *Relationship Marketing: the mediating role of customer experiences*. Paper presented during the 1st Annual Research Conference organised by Maastricht School of Management (MSM) in Maastricht, The Netherlands on 11th-12th November, 2011.

Kaliprasad, M. (2006). The Human Factor 11: Creating a High Performance Culture in an Organisation. *Cost Engineering*, *48(6)*, 27-35.

Kalling, T. (2003). Knowledge management and the occasional links with Performance. *Journal of Knowledge Management, 7(3)*, 67-81.

Kamukama, N., & Tumwine, S. (2012). Mobile Money Services: a Liquidity threat to Uganda's Commercial Banks. *African Journal of Accounting, Economics, Finance and Banking Research, 8(8).*

Kamukama, N., Ahiauzu, A., & Ntayi, J. M. (2011). Competitive advantage: mediator of intellectual capital and performance. *Journal of Intellectual Capital, 12(1)*, 152–164.

Kamya, M, T., Ntayi, J.M., & Ahiauzu, A. (2010). Knowledge management and competitive advantage: The interaction effect of market orientation. *African Journal of Business Management, 4(14)*, 2971-2980. Available online at http://www.academicjournals. org/AJBM.

Kaplan, S. Schenkel, A., Krogh, G., & Weber, C. (2001). Knowledge-Based Theories of the Firm in Strategic Management: A Review and Extension. *Academy of Management Review.*

Kasarda, J. D. & Rondinelli, D. A. (1998). Innovative infrastructure for agile manufacturers, Sloan Management Review, *39(2),* 73-82.

Kearns, G. S., & Lederer, A. L. (2003). A Resource-based View of Strategic IT Alignment: How Knowledge Sharing Creates Competitive Advantage. *Decision Science, 34(1)*, 1-29.

Kessides, I. (2000). Internal vs. External market conditions and firm profitability: An exploratory model. *Economic Journal,* 100.

Khandekar, A., & Sharma, A. (2005). Managing human resource capability for sustainable competitive advantage. *Education and Training, 47(8/9),* 645-666.

Kiggundu, M. (2013). Practitioner view point. Personal reflections on African management: looking in, looking out and looking ahead, *African Journal of Economics and Management Studies*, 4(2), 177-200.

Kikooma, J. F. (2010). Using Qualitative Data Analysis Software in a Social Constructionist Study of Entrepreneurship. *Qualitative Research Journal, 10(1).*

Kim, J. (2009). Strategic human resource practices: Introducing alternatives for organizational performance improvement in the public sector. *Public Administration Review*, 70(1), 38-49.

King, W. R. (2008). An integrated architecture for the effective knowledge organisation. *Journal of Knowledge Management, 12(2),* 1367–1380.

Kirby, J. (2005). Towards a Theory of High Performance. *Harvard Busines Review*, July-August. 30-39.

Kjærgaard, A., & Kautz, K. (2008). A process model of establishing knowledge management: Insights from a longitudinal field study. *Omega, 36(2)*, 282-297.

Knogh, Von. G., Ichijo, K., & Nonaka, I. (2002). *Enabling Knowledge Creation: How to Unlock the Mystery of Tacit Knowledge and Release the Power of Innovation, Oxford* University Press: New York.

Kogut, B., & Zander, U. (1996). What firms do? Coordination, identity, and learning, *Organisation Science, 7(5),* 502-518.

Kregcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*, 607-10.

Kridan, A. B., & Goulding, J. S. (2006). A case study on Knowledge Management Implementation in the banking sector. VINE: *The Journal of information and knowledge management systems, 36(2)*, 211-222.

Kruger, C. J., & Johnson, R. D. (2009). Determining the Value of Knowledge Management. *Proceedings of the Second Annual; SIG globdev Workshop.* Phoenix, USA, December 14, 2009.

Kruger, C. J., & Johnson, R. D. (2011). Is there a correlation between knowledge management maturity and organizational performance? *VINE, 41(3),* 265-295.

Kutner, N. (2004). *Applied Linear Regression Models*, (4th Ed.), mcgraw-Hill Irwin.

Lang, J. C. (2001). Managerial concerns in knowledge management. *Journal of Knowledge Management*, 5(1):43-57.

Langfield-Smith, K. (1997). Management control systems and strategy: A critical review. Accounting, organisationorganisations and Society, 22(2*),* 207–232.

Lawler, E. 1. (2007). Toward High- Performance Organisations. *Journal of Performance Improvement, 41(3),* 8-12.

Lee, H., & Choi, B. (2003). Knowledge Management Enablers, processes and Organisational Knowledge: An integrative view and empirical investigation. *Journal of Management Information Systems, 20(1),* 179–228.

Lee, K. C., Lee, S., & Kang, I. W. (2005). KMPI: measuring knowledge management performance, *Information and Management, 42(3),* 469-482.

Lee, L. T., & Sukoco, B. M. (2007). The effects of Entrepreneurial orientation and Knowledge Management capability on Organisational effectiveness in Taiwan: The Moderating role of social capital. *International Journal of Management, 24(3),* 549-573*.*

Lee, M. R., & Chen, Tsung Teng. (2012). Revealing research themes and trends in knowledge management: From 1995 to 2010. *28*, 47–58.

Lee, S., Kim, B. G., & Kim, H. (2012). An integrated view of knowledge management for performance. Journal of Knowledge Management, *16(2),* 183-203.

Lee, Y.C., & Lee, S. K. (2007). Capabilities, processes, and performance of knowledge management: a structural approach, *Human Factors and Ergonomics in Manufacturing*, *17(1),* 21-41.

Lewins, A., & Silver, C. (2009). Choosing a CAQDAS Package: A working paper. CAQDAS Networking Project, available from Internet http://cue.berkeley.edu/qdaarticle.pdf (13th January, 2010).

Lewis, J. (2003). Design issues. In *Qualitative research practice–a guide for social science students and researchers.* (Ed. J. Ritchie and J. Lewis), pp. 47-76. Sage Publications, London.

Liao, S., Fei, W. C., & Liu, C. T. (2008). Relationships between knowledge Inertia, Organisational Learning and Organisation innovation. *Science Direct Technovation, 28,* 183-195.

Lieberman, M. B., & Kang, J. (2008). How to Measure Company Productivity using Value-added: A Focus on Pohang Steel (POSCO). *Asia Pacific Journal of Management, 25*, 209-224.

Liebowitz, J., & Wright, K. (1999). Does measuring knowledge make “cents”? *Expert Systems with Applications, 17(2)*, 99–103.

Liikanen, E. (2012). *High-level Expert Group on reforming the structure of the EU banking sector.* The High-level Expert Group, HLEG.

Likert, R. (2007). Likert Scales and Surveys best practices www.intelligentmesuarement.wordpress.com/2010/03/20 liker scale-surveys-best-practices/-91.

Little, K. (2006). Types of investment risks. Retrieved February 15, 2011 from http://stocks.about.com/od/tradingbasics/a/Typesrisk120704.htm

Little, M. W. (2002). Using key informants as a foundation for e-retailing theory development. *Journal of Business Research, 58(8),* 629-636.

Lloria, M., & Begon˜a. (2008). A Review of the main Approaches to Knowledge Management. *Management Research and Practice, 6,* 77–89.

Lockett, A., Thompson, S., & Morgenstern, U. (2009). The development of the resource-based view of the firm: a critical appraisal. *International Journal of Management Reviews*, *11(1)*, 9-28.

Lorenz, D. M. (2008). *The perceived effect of trust as it relates to knowledge transfer between multigenerational employees.* Unpublished Ph.D. Capella University, United States Minnesota.

Luigi De, L., & Atuahene-Gima, K. (2007). Market Knowledge dimensions and cross-functional Collaboration: Examining the different routes to product Innovation performance. *Journal of Marketing*, 95-112.

Luthans, F., & Youssef, C. M. (2007). Emerging Positive Organisational Behavior. *Journal of Management, 33(3),* 321-349.

Lwoga, E. T. (2011). Knowledge management approaches in managing agricultural indegenous and exogenous knowledge in Tanzania. *Journal of Documentation, 67(3),* 407-430.

Lyles, M. A., & Salk, J. E. (2007). Knowledge acquisition from foreign parents in international joint ventures: an empirical examination in the Hungarian context. *International Business Studies, 38,* 3–18.

Mackinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annual Review of Psychology, 58,* 593-614.

Mafabi, S. Munene, J., & Ntayi, J. (2012). Knowledge management and organisational resilience: Organisational innovation as a mediator in Uganda parastatals. *Journal of Strategy and Management, 5(1),* 57-80.

Maheran, N. M., & Khairu, A. I. (2009). Intellectual capital efficiency and firm's performance: study of Malaysian financial sectors. *International Journal of Economics and Finance, 1(2),* 206-12.

Maier, R. (2005). Modelling knowledge work for the design of knowledge infrastructure. *Journal of Universal Computer Science, 11(4),* 429-51.

Malhotra, N. K. (2004). *Marketing research: An applied orientation* (4th Ed.). Upper Saddle River, NJ: Prentice Hall.

Mankin, (2009). *Human Resource Development.* Oxford University Press.

Manuel, E. G. (2008). Knowledge Management Progression, Issues and Approaches for Organisational Effectiveness in Manufacturing Industry: An Implementation Agenda. *ICFAI, Journal of Knowledge Management,* 6(1), 20-45.

Manzoni, J. F. (2004). From high performance organisations to an organisational excellence framework. In M. J. Epstein, and J. F. Manzoni (ed.), Performance measurement and Management control: Superior organisational performance. Studies in managerial and financial accounting, Vol. 14, Amsterdam: Elsevier.

Marie, DeCarolis, D., & David, L. D. (1999). The impact of stocks and flows of organisational knowledge on firm performance: an empirical investigation of the biotechnology industry. *Strategic Management Journal,* 20(10), 953–968.

Marques, D.P., & Simón. F. J. G. (2006). The effect of knowledge management practices on firm performance. *Journal of Knowledge Management*, *10(3),* 143-156.

Martelo-Landroguez, S., Juan-Gabriel., & Cegarra-Navarro. (2014). Linking knowledge corridors to customer value through knowledge processes. *Journal of Knowledge Management*, *18(2)*.

Martins, E. C., & Meyer, W. J. (2011). Organisational and behavioural factors that influence knowledge retention. *Journal of Knowledge management, 16(1),* 77-96.

Masele, J. J. (2008). Integrating Academic Institutional Management Information Systems to a centralized Knowledge Management Systems in Tanzanian Universities.

Masom, D., & Pauleen, D. J. (2003). Perceptions of knowledge management: A qualitative analysis. *Journal of knowledge management, 7(4),* 38-48.

Mcadam, R., & McCreedy, S. (2000). A critique of knowledge management: Using a social constructionist model. *Journal of New Technology Work and Employment, 15(2),* 155-168.

McDonough III, E. F, Zack, M.H, Lin, H. E., & Berdrow, I. (2008).Integrating Innovation Style and Knowledge into Strategy. *MIT Sloan Management Review, 50(1),* 53-58.

McGinnis, M.A., & Vallopra, R.M., (1998). Purchasing and Supplier Involvement: New Product Development and Production/Operation Process development and Improvement, (Tempe, Arizona: Center for Advanced Purchasing Studies, 1998).

McKenzie, D. W. M. (2009). *The results of a pilot financial literacy and business planning training program for women in Uganda*: Research at the World Bank.

Mckinsey. (2012). The Hunt for Elusive Growth: Asset Management in 2012. *Global Asset Management Database.*

McNeish, J., & Mann, I. J. S. (2010). Knowledge Sharing and Trust in Organisations. *JCIS-IUP Journal of Knowledge Management, 8(1/2),* 18-38.

Mehrizi, R. M. H., & Bontis, N. (2009). A cluster analysis of the Knowledge Management field. *Management Decision*, *47(5),* 792-805.

Melville, N., Kraemer, K., & Gurbaxani, V. (2004). Review: Information Technology and Organisational Performance: An Integrative Model of IT Business Value. *MIS Quarterly, 28(2),* 283-321.

Miles, M. B., & Hubermann, M. A. (2003). *Qualitative Data Analysis.* London: Sage, London.

Mills, A., & Smith, T. (2011). Knowledge Management and organisational Performance: a decomposed view. *Journal of Knowledge Management, 15(1),* 156-171.

Min-Shi Liu., & Nien-Chi Liu. (2008). Sources of Knowledge acquisition and patterns of Knowledge-sharing behaviours. An empirical study of Taiwanese high-tech firms. *International journal of information Management, 28(5),* 423–432.

Mintzberg, H. (1973). *The nature of managerial work*. Harper & Row, New York.

Mintzberg, H. (2009). *Managing.* Financial Times Prentice Hall, Harrow.

Mittal, M., & Dhade, A. (2007). Profitability and Productivity in Indian Banks: A Comparative Study. *1(2),* 137-152.

Molefe, G. N., Boodt, G., & Schurink, W. J. (2011). High performance organisation: A quantitative inquiry at a specific metropolitan municipality in the Gauteng Province. *African Journal of Business Management, 5(3),* 699-712.

Morawczynski, O., & Miscione, G. (2008). Examining Trust in Mobile Banking Transactions in Kenya: The case of M-Pesa in Kenya. Paper presented at the IFIP WG 9.4–University of Pretoria Joint Workshop, Pretoria, South Africa.

Morgan, A., & Anthony, S. (2008). Creating a high-performance workplace: a review of issues and opportunities. *Journal of Corporate Real Estate, 10(1),* 27-39.

Morrison, T. (2007). Emotional Intelligence, Emotion and Social Work: Context, Characteristics, Complications and Contribution. *Br J Soc Work, 37(2), 245-263.*

Mugumbate, J., & Nyanguru, A. (2013). Exploring African philosophy: The value of ubuntu in social work, *African Journal of Social Work,* 3(1), 82–100.

Mugume, A. (2008). Efficiency in Uganda's Banking Industry. *The African Journal of Business and Law,* 2(2).

Muheirwe, W. T. (2003). Improving Performance through Internal Reforms by the Public Sector. Case of National Water & Sewage Corporation Uganda. Washington D.C. World Bank (March 4-6).

Muhenda, M. B., Lwanga, K. E., & Wanderage, A. (2008). Do knowledge management practices in higher Institutions of learning affect innovation: empirical findings from management development institutes in Uganda and Tanzania.

Muhwezi, M. (2010). *Horizontal Purchasing Collaboration in Developing Countries. Behavioural Issues in Public Units in Uganda.* PhD thesis, University of Twente, Enschede, the Netherland.

Murphy, A., & Thomas, N. G. (2009). Balancing Flexibility with Security in Organisations? Exploring the Links between Flexicurity and Human Resource Development. *Human Resource Development Review, 8(1) 3-21.*

Narteh, B. (2008). Knowledge transfer in developed-developing country inter-firm collaborations: a conceptual framework. *Journal of Knowledge Management, 12(1), 78-91.*

Nemani, R. R. (2010). The Role of Computer Technologies in Knowledge Acquisition.*Journal of Knowledge Management Practice, 11(3).*

Nemani, R., & Creason, S. B. (2009). Research Methodologies used in KM: a literature review. Minneapolis Metropolitan State University.

Nemati, B., Ghaemi, V., & Rashidi, M. (2013). The Effect of KM implementation on organisational performance with balanced scorecard methodology. *Management Science Letters*, *3(3),* 1025-1036.

Newbert, S. (2007). Empirical research on the resource-based view of the firm: an assessment and suggestions for future research. *Strategic Management Journal*, *28,* 121–146.

Newbert, S. L. (2007). Empirical research on the Resource-Based View of the firm: an Assessment and Suggestions for future research. *Strategic Management Journal*, *28(2),* 121–146.

Newbold-Coco, R. (2006). Key Components of HPO's, www. Biz covering.com.

Nguyen, Hai Nam., & Mohamed, S. (2011). Leadership behaviors, organisational culture and knowledge management practices: An empirical investigation. *Journal of Management Development, 30(2),* 206-221.

Nonaka, I. (2007). Knowledge Management: Theoretical and Methodological Foundations. In K. G. Smith & Hitt, M. A. (Eds). *Great Minds in Management: The process of Theory Development.* (pp 373–393). New York: Oxford.

Nonaka, I. (2007). The Knowledge Creating Company. *Harvard Business Review,* 162-171.

Nonaka, I., & Tekeuchi, H. (1995). *The knowledge–Creating Company: How Japanese Companies Create the Dynamics of Innovation*. New York: Oxford University Press.

Nonaka, I., Toyama, R. & Nataga, I. (2000). A firm as a knowledge-creating entity: A new perspective on the theory of the firm. *Industrial and Corporate Change*, 9(1), 1-12.

Ntayi, J. (2005). *Career Resilience and Sales force Performance*. Ph.D. Thesis. Makerere University, Kampala, Uganda.

Nunnally, J. C. (1978). *Psychometric theory.* (2nd Ed). New York: McGraw-Hill.

O'Reilly, C. A., & Pfeffer, J. (2000). *Hidden Value: How Great Companies Achieve Extraordinary Results with Ordinary People*? Boston: Harvard Business School Press.

Okunoye, Innola, & Karsten. (2003). Benchmarking Knowledge Management in Developing Countries: Case of Research Organisations in Nigeria. The Gambia and India.

Oluikpe, P. (2012). Developing a Corporate Knowledge Management Strategy. *Journal of Knowledge Management*, *16(6),* 862-878.

Oppong, S, A., Yen, D.C., & Merhout, J, W. (2005). A new strategy for harnessing knowledge management in e-commerce, *Technol. Soc., 27: 413-435.*

Ordóñez de Pablos, P. (2004). Knowledge flow transfers in multinational corporations: knowledge properties and implications for management, *Journal of Knowledge Management*, 8(6), 105-116.

Overholt, Granell, Vicere, & Jargon. (2006). *Building Flexible Organisations: A People-Centred Approach.*

Owen, D.L., Swift, T., & Hunt, K. (2001). Questioning the Role of Stakeholder Engagement in Social and Ethical Accounting, Auditing and Reporting. *Accounting Forum, 25(3),* 264–282.

Pallant, J. (2011). *SPSS survival manual: a step by step guide to data analysis using SPSS (4th Ed.)*. Crows Nest: Allen & Unwin.

Palrecha, R. (2009). Leadership – universal or culturally-contingent - a multi-theory/multi-method test in China. *Academy of Management Proceedings,* 1-6.

Papoutsakis, H. (2007). Sharing knowledge in the Organisation: a Retrospective Analysis and an Empirical study. *The Electronic Journal of Knowledge Management, 5(2), 231-244.*

Park, Y.T., & Kim, S. (2006). Knowledge management systems for Fourth Generation R&D: knowvation. *Technovation,* 26.

Pastor, M., Ito, J., & Rhonda Ortiz. (2010). *Connecting at the Crossroads: Alliance Building and Social Change in Tough Times.* Los Angeles: USC Program for Environmental and Regional Equity.

Pathirage, C., Haigh, R., Amaratunga, D., & Baldry, D. (2008). Knowledge Management practices in facilities organisations: a case study. *Journal of Facilities Management, 6(1),* 5-22.

Payne, J., & Sheehan, T. (2004). *Demystifying knowledge management*, UK: Constructing Excellence.

Pearl, J. (2011).The Causal Mediation Formula. A guide to the Assessment of Pathways and Mechanisms. *Prevention Science, 13*, 426-436.

Pearson, A. W.J, C., *&* Shaw, J. C. (2008). Toward a theory of familiness: a social capital perspective. *Entrepreneurship Theory and Practice, 32(6),* 949-969.

Penrose, E. (1959). *The Theory of the Growth of the Firm*. New York: Wiley.

Peteraf, M. A., *&* Barney, J. B. (2003). Unravelling the resource-based tangle. *Managerial and Decision Economics. 24(4),* 241-369.

Pfeffer*, J., &* Sutton, R.I. *(2000*). *The Knowing Doing Gap: How Smart Companies Turn Knowledge into Action*. Harvard Business School Press.

Pil, K. F., & MacDuffie, J. P. (1996). The Adoption of High-Involvement Work Practices, *Industrial Relations*, *35(3),* 423-455.

Pillania, R. (2008). Knowledge Management for High Performance: Indian Industry Perspective. *Productivity, 47(2),* 35-48.

Pinho, I., Rego, A., Miguel, P., & Cunha, (2012). Improving knowledge management processes: a hybrid positive approach. *Journal of Knowledge Management, 16(2),* 215-2.

Pitelis, C. (2007). A Behavioural Resource-Based View of the Firm: The Synergy of Cyert and March (1963) and Penrose (1959). *Organisation Science, 18(3),* 478-490.

Pitelis, C. N. (2007). A behavioral resource-based view of the firm: the synergy of Cyert and March (1963) and Penrose (1959). *Organisation Science*, *18*, 478–490.

Podsakoff, P. M., Mackenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common methods bias in behavioural research a critical review of the literature and recommended remedies. *Journal of applied psychology, 88(5),* 879-903.

Pope, C. (2000). Analysing qualitative data. *Business Management Journal*, *320(7227*), 114–116.

Porter, M. E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance.* The Free Press. New York, USA.

Porter, M. E., & Ketels, C. (2003). UK Competitiveness–Moving to the next stage. DTI Economics Paper No.3, May 2003.

Porter, M. E., Schwarb, K., & Lopez-Claros, A. (2005). *The Global Competitiveness Report, 2005-2006: Policies Underpinning Rising Prosperity.* New York: Oxford University Press.

Posthuma, R., Campion, M., Masimova, M., & Campion, M. (2013). High performance work practices taxonomy: Integrating the literature and directing future research. *Journal of Management, 39*(5), 1184–1220.

Powell, M. (1998). Crime and the City Solution: Crime Fiction, Urban Knowledge, and Radical Geography. *Antipode, 30(4),* 357–78.

Prajogo, D. I., & McDermott, P. (2011). Examining competitive priorities and Competitive advantage in service organisations using Importance–Performance Analysis matrix. *Managing Service Quality, 21(5),* 465-483.

Prasetya, A., *&* Masanori, K. (2010). Correlation among Corporate Productivity, Performance Assessment System and Salary System (A Numerical Representation of a Qualitative Survey) *Research Journal of International Studies,* 16(9).

Priti, J. (2006). Empowering Africa's development using ICT in a Knowledge Management approach. *The Journal of Electronic Library, 24(1),* 51-67.

Probst, G., Raub, S., & Romhardt, K. (1999). *Managing Knowledge; Building Blocks for Success.* Inc. New York: John Wiley & Sons.

Qu, S. Q., *&* Dumay, J. (2011). The qualitative interview. *Qualitative Research in Accounting and Management, 11(3),* 238-264.

Quast, L. (2012). Why Knowledge Management is Important to the Success of your Company. http://www.forbes.com/sites/lisaquast/2013/08/20/.

Raghu, T. S., & Vinze, A. (2007). A business process context for Knowledge Management. *Decision Support System*s, *43(3),* 1062–1079.

Raja Suzana, R. K. (2008). The relationship of knowledge management practices, competencies and the organisational performance of Government Departments in Malaysia. *World Academy of Science, 48* (Engineering and Technology), Malaysia.

Remenyi, D., Williams, B., Money, A., & Swartz, E. (1998). *Doing research in business and management – an introduction to process and method.* Sage Publications, London.

Renzel, B. (2008). Trust in management and knowledge sharing: the mediating efforts of fear and knowledge documentation. *Omega, 36*, 206-222.

Report by the Education and Training the Australian Industry Group, (2012). High Performance organisations: Maximising workforce potential Research Review and Survey Results. Website www.aigroup.com.au

Report of Census of Financial Institutions in Uganda (2006). Financial Sector Deepening Project Uganda (FSDU). Ministry of Finance, Planning and Economic Development (MOFPED).

Reychav, I., & Weisberg, J. (2009). Going beyond technology: Knowledge sharing as a tool for enhancing customer-oriented attitudes. *International Journal of Information Management, 29(5),* 353-36.

Ribeiro, F. L. (2009). Enhancing knowledge management in construction firms, *Construction Innovation, 9(3)*, 268-284

Richard, P. J., Devinney, T. M., Yip, G.S., & Johnson, G. (2009): Measuring Organisational Performance: Towards Methodological Best Practice. *Journal of Management, 35(3)*, 718-804.

Ridder, H. G., & McCandless, A. (2010). Influences on the Architecture of HRM in non-profit organisations. *Non-profit and Voluntary Sector Quarterly*, *39(1),* 124-141.

Riege, A. (2005). Three-dozen knowledge–sharing barriers managers must consider. *Journal of Knowledge management, 9(3),* 18-35*.*

Riveros, A. M., & Tsai, T. S. T. (2011). Career commitment and organisational commitment in for-profit and non-profit sectors. *International Journal of Emerging Science, 1(3),* 324–340.

Robles-Flores, J. A., & Kulkarni, U. (2006). *Knowledge Management Systems: A Business Value Model* [Arizona State University], [Online]. Available: www.public.asu.edu/~jrobles1/docs/262.pdf.

Rogers, M., & Blenko, P. (2006). The high performance Organisation: making good decisions and making them happen. *In a Handbook of Business Strategy, 7(1),* 133-141)

Roos, G., *&* Roos, J. (1997). Measuring your Company's Intellectual Performance. *Long Range Planning, Special Issue on Intellectual Capital, 30(3),* 413-426*.*

Roos, G., Pike, S., & Femstrom, L. (2006). *Managing Intellectual in Practice*. Butterworth-Heinemann, an Imprint of Elsevier, USA.

Rossmana, Gretchen, B., & Rallis, Sharon, F. (2010). Everyday ethics: reflections on practice. *International Journal of Qualitative Studies in Education, 23(4),* 379-391.

Rowlands, B. H. (2005). Grounded in practice: Using interpretive research to build theory. *Electronic Journal of Business Research Method*s, *3(1),* 81-92.

Royal, C., & O'Donnell, L. (2008). Differentiation in Financial Markets: The Human Capital Approach, *Journal of Intellectual Capital, 9(4)*.

Royal, C., & O'Donnell, L. (2008). Differentiation in Financial Markets: The Human Capital Approach, *Journal of Intellectual Capital, 9(4)*.

Rubin, L.H., Witkiewitz, K., St. Andre, J., *&* Reilly, S. (2007). Methods for handling missing data in the behavioural neurosciences: Don't throw the baby rat out with the bath water. *Journal of Undergraduate Neuroscience Education, 5,* 71-77.

Ruggles, R., & Holtshouse, D. (eds.) (1999). *The Knowledge Advantage: 14 Visionaries Speak on Leveraging Knowledge for Marketplace Success*, Dover, USA: Capstone.

Saghali, A. (2011). The intervening role of organisational dynamic routines: Absorptive capacity and knowledge management perspective. *International Conference on Economics and Finance Research. IPEDR vol.4 (2011) © (2011) IACSIT Press, Singapore.*

Sarantakos, S. (1997). *Social Research.* (2nd Ed.). Palgrave Publishers Ltd.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*, (5th Ed.). Prentice Hall.

Schermerhorn, J. R., James, G. Hunt, Richard, N., & Osborn, (2004). *Organisational Behaviour.* John Wiley & Sons Inc.

Schiuma, G. (ed), (2011). Managing Knowledge Assets and Business Value Creation in Organisation: Measures and Dynamic, in, *IGI-GLOBAL Book*s, Hershey, PA, USA.

Schmidt, T. (2010). Absorptive capacity-one size fits all? A firm-level analysis of absorptive capacity for different kinds of knowledge. *Managerial and Decision Economics*, *31(1),* 1-18.

Schumacher, L. Flamini, V., & McDonald, C. (2009). The Determinants of Commercial Bank Profitability in Sub-Saharan Africa. *IMF Working Paper, African Department. WP/O9/15.*

Schurr, P. H. (2007). Buyer-seller development relationship episodes: theories and methods. *Journal of Business & Industrial Marketing, 22(3),* 161-170.

Scott, M. L. (2003). *Multicollinearity challenge Discovering Statistics in business*. Bantam Doubleday Dell Publishing Group, New York.

Scott-Jackson, W. B. (2008). The Gulf Arab management style as a source of strategic advantage: building global strategic capabilities on the foundations of local culture, in Schrijnen, P & Leigh, E. (eds) Bridging the Gulf: theories and practices for learning across organisations, sectors, and cultures, society for organisational learning (SoL).

Sekaran, U. (2008). *Research methods for business: a skill-building approach*. (5th Ed.), New York: John Wiley and Son, Inc.

Selvarajah, C. & Meyer, D. (2008). One nation, three cultures: exploring dimensions that relate to leadership in Malaysia. *Leadership & Organisation Development Journal, 29(8),* 693–712.

Sen, B., *&* Khashmelmous, N. A. (2006). Incorporating indigenous knowledge materials, efforts at Elhadeed Library, Ahfad University, Sudan: A preliminary study. *The international information and library Review, 38(3),* 117-37.

Shannak, R., Masa'deh, R., & Akour, M. (2012). Knowledge management strategy building: Literature review. *European Scientific Journal, 8(15),* 143–168.

Sharma, R. S., Teng, Yuhui, P., & Meng-Wah, T. (2007). Value–added Knowledge management for financial performance. The case of an East Asia Conglomerate. VINE *The Journal of Information and Knowledge Management Systems, 37(4),* 484-501.

Shih, Meng-Hsun., Tsai, Hsien-Tang., & Chi-Cheng, W. (2006). Holistic Knowledge Sharing Framework in High-Tech Firms: Game and Co-competition perspectives. *International Journal of Technology Management*, *36(4),* 354-366.

Shu-Hsien, L., Wu-chen, F., & Chih-chiang, C. (2007). Knowledge Sharing, Absorptive Capacity, and Innovation Capability: an Empirical Study of Taiwan's Knowledge-intensive Industries. *Journal of Information Science, 33*: 340.

Shu-Hsien, L., Wu-chen, F., Chih-chiang, C., & Tsuei, G.A. (2009). Knowledge acquisition, Absorptive Capacity, and Innovation Capability: an Empirical Study of Taiwan's Knowledge-intensive Industries. *World Academy of Science. Engineering and Technology 53.*

Sigala, M., & Chalkiti, K. (2007). Improving performance through tacit knowledge. *Journal of Productivity and Performance Management, 56(5/6).*

Simons, M. (2008). Aggregate capital productivity in the US economy, 1964–2001. Cambridge Journal of Economics, *33(5),* 1023-1046.

Singh, S., Chan Y. E., & Mckeen, J. D. (2006). Knowledge Management Capability and Organisational Performance: A theoretical Foundation. Paper submitted to OLKC 2006 Conference at the University of Warwick, Coventry on 20th –22nd March 2006.

Sirkin, H. L., Keenan, P., & Jackson, A. (2005). The Hard side of Change Management. *Harvard Business Review.*

Slack, E. (2009). Selling hope. *Retail Merchandiser, 49(1),* 89–91.

Slater, S. F., & Narver, J. C. (2007). Market orientation and the Learning Organisation. *Journal of Marketing, 59(7)*, 63–74.

Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In Samuel Leinhardt (Ed.), *Sociological methodology* (pp. 290–312). San Francisco: Jossey-Bass.

Spender, J.C. (1996). Making knowledge the basis of a dynamic theory of the firm. *Strategic management Journal, 17(S2),* 45-62.

Squier, M. M., & R. Snyman, (2004). Knowledge management in three financial organisations: a case study. *Aslib Proceedings, 56(4),* 234-242.

Srivastava, A., Bartol, K. M., & Locke, E. A. (2006). Empowering Leadership in Management Teams: Effects on knowledge sharing, efficacy, and team Performance. *Academy of Management Journal*, *49(6),* 1239–51.

Srnka, K. J., & Koeszegi, S. T. (2007). From words to numbers; how to transform Qualitative data into meaningful quantitative results. *Schmalenbach Business Review, 59(1),* 29-57.

Stadler, C. (2007). The Four Principles of Enduring Success. Harvard Business Review, *85*: 62-72.

Statistical strategies for small sample research. Newbury Park: Sage.

Stewart, T. A. (1997). *Intellectual Capital: The new wealth of organisations. Bantam* Doubleday Dell Publishing Group, New York.

Sujatha, Das. (2007). Benefits of Knowledge Management, *knowmgt, blogspot.com/2007.*

Sullivan*, A. (*2001). Why do so much education and training, management. *Cultural Capital and Educational Attainment Sociology, 35(4).* 893-912.

Sung, D. N., & Ashton, J. (2005). Supporting workplace learning for High performance work practices.

Sutton, R. (2000). Knowledge management is not an oxymoron. 1: 28.

Sveiby, K. E. (2001). *The New Organisational Wealth: Managing and Measuring Knowledge-based Assets*, Berret-Koehler Publishers, San Francisco, CA.

Swaminathan, V., Feisal, M., & Hulland, J. (2008). Value Creation Following Merger and Acquisition Announcements: The Role of Strategic Emphasis Alignment. *Journal of Marketing Research, 45(1),* 33-47.

Szulanski, G. (1996). Exploring internal stickiness: Impediments to the transfer of best practice within the firm. *Strategic Management Journal,* Special Issue: Knowledge and the Firm. *17(2),* 27–43. Winter 1996.

Tan, C. L., & Nasurdin, A. M. (2011). Human Resource Management Practices and Organisational Innovation: Assessing the Mediating Role of Knowledge Management Effectiveness. *Journal of Applied Business Research, 2(4),* 105-115.

Tangen, S. (2003). An overview of frequently used performance measures. Work Study, 52(7*),* 347–354.

Teece, D. J. (1998a). Capturing value from knowledge assets: The new economy, Markets for know-how, and intangible assets. *California Management Review, 40(30),* 55-+.

Teece, D. J. (2007). Explicating dynamic capabilities: The nature and micro foundations of (sustainable) enterprise performance. *Strategic Management Journal. 28(13),* 1319-1350.

Teece, D. J. (2009). *Dynamic capabilities & Strategic management, organizing for innovation and growth.* Oxford University Press, Oxford.

Teece, D. J. Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal, 18(7).* 509–533.

Tenenhaus, M. (2008) Component-based structural equation modeling. *Total Quality Management & Business Excellence, 19,* 871-886.

Tenenhaus, M., Vinzi, V. E., Chatelin, Y. M., & Lauro, C. (2005). Path modelling Computational statistics and data analysis. *48(1*), 159-205.

Thompson, M, P. A., & Walsham, G. (2004). Placing Knowledge Management in Context. *Journal of Management Studies, 41(5),* 725–747.

Thompson, P. (2011). The Trouble with HRM. *Human Resource Management Journal, 21(4),* 355–367.

Thomson, G. S. (2010). High–Performance Organisations: The Wal-Mart Stores Inc. Case Study.

Triguero, R., Pena-Vinces, J., Gonzalez-Rendon, M., & Sanchez-Apellaniz, M. (2012). Human Management Practices Aimed at Seeking the Commitment of Employees on Financial and Non-Financial (subjective) Performance in Spanish Firms: An Empirical contribution. *Journal of Economic Finance & Administration science, 17(32*).

Turyasingura, W. (2008). Knowledge Management and Institutional/Organisational Learning in higher Institutions of Learning in Uganda and South Africa: Implications for Quality Training. *IASIA Annual Conference.* Kampala, Uganda.

Turyasingura, W. (2011). *Interdependency of Knowledge Management and Organisational Learning: The Case of Higher Education Institutions in Uganda*. PhD Thesis, University of the Witwatersrand, South Africa.

Uganda Bureau of Statistics (2010). *Statistical Abstract.*

Uganda Bureau of Statistics (2012). *Business Register.*

Uys, T., & Puttergill, C. (2003). Sampling, in Rossouw, D. (Eds), *Intellectual Tools: Skills for Human Sciences.* (2nd Ed). Van Schaik, Pretoria, pp.107-16.

Van den Herik, H. J. (1988). *Informatica en het menselijk blikveld*. Inaugural address Rijksuniversiteit Limburg, Maastricht, the Netherlands.

Van Stam, G. (2013b). Information and Knowledge Transfer in the rural community of Macha, Zambia. *The Journal of Community Informatics*, 9(1).

Van Stam, G. (2015). 'Ubuntu and peace: Without a mother, there is no home', viewed 27 September 2015, from http://www.academia.edu/8811815.

Vickers, Overbolt, & Morrison, (2008). High-performance organisations: finding the elements of excellence. American Management Association.

Vinaja, R. (2009). Knowledge Management in Action. *Journal of Global Information Technology Management, 12(1),* 76.

Vorakulpipat, C., & Rezgui, Y. (2008). An evolutionary and interpretive perspective to knowledge management. *Journal of Knowledge Management, 12(3),* 17-34.

Waal, A. A. (2007). *Strategic Performance Management*. *A managerial and behavioural approach*. Palgrave Mackmillan. New York, NY.

Waal, A. A. (2007). The Characteristics of a High Performance Organisation. *Business Strategy, 8(3),* Emerald Publishing Limited.

Waal, A. A. (2008). The role of Information Technology in the High Performing Organisation, *white paper.*

Waal, A. A. (2012). Characteristics of High Performance Organisations. *Business Management Strategy, 3(1).* 14-31.

Waal, A. A. (2012). *What Makes a High Performance Organisation: Validated Factors of Competitive Advantage that Apply Worldwide.* Global Professional Publishing Ltd.

Waal, A. A., & Chachage, B. (2011). Applicability of the high-performance organisation framework at an East African University. The case of Iringa University College. *International Journal of Emerging Markets,* 6(2), 148-167.

Waal, A. A., & Escalante, O.G. (2011). Does the application of corporate social responsibility support a high performance organization in achieving better results? The case of mining multinationals in Peru. *International Journal Sustainable Strategic Management*, 3(1), 33-49.

Waal, A. A., & Frijns, M. (2009). Working on high performance in Asia: the case of Nabil Bank, *Measuring Business Excellence*, 13(3), 29-38.

Waal, A. A., & Frijns, M. (2011). Longitudinal research into factors of high performance: the follow-up case of Nabil Bank. *Measuring business excellence, 15(1)*, 4-19.

Waal, A. A., Duong, H. & Ton, V. (2009). High Performance in Vietnam: the case of the Vietnamese banking industry, *Journal of Transnational Management, 14*: 179–201.

Waal, A.A., & Sultan, S. (2012). Applicability of the High Performance Organization Framework in the Middle East: the case of Palestine Polytechnic University. *International conference on Excellence in Business.* Sharjah, United Arab Emirates. (9-10 May, 2012).

Waddell, D., & Stewart, D. (2008). Knowledge management as perceived by quality practitioners. *The Total Quality Management Journal*, *20(1),* 31-44.

Wade, M., & Hulland, J. (2004). Review: The Resource Based View and Information Systems Research; Review, Extension, and suggestions for future research, *MIS, Quarterly. 28(1),* 107-142.

Wagner, Heinz-Theo. Weitzel, T. (2007). Towards an IT production function: understanding routines as fundamental for IT value creation: *Journal of Enterprise Information Management (JEIM), 20(4),* 380-395.

Wagner, M. (2009). Innovation and competitive advantages from the integration of strategic aspects with social and environmental management in European firms. *Business Strategy and the Environment, 18,* 291–306.

Wang, C. & Ahmed, P. (2007). Dynamic capabilities: a review and research agenda. *International Journal of Management Reviews*, *9(1),* 31–51.

Wang, C. L. (2004). An empirical study on the relationship between knowledge management styles and business performance for commercial banks in Taiwan.

Watson, S., & Hewett. (2006). A Multi- theoretical Model of Knowledge Transfer in Organisations: Determinants of Knowledge Contribution and Knowledge Reuse. *Journal of Management Studies, 43(2),* 141-173.

Webber, J. (2006). Character, Consistency, and Classification. Mind *(July), 115(459): 651-658.*

Weitzman, E., & Miles, M. (1995). *Computer programs for qualitative data analysis: a software source book*. Thousand Oaks, CA: Sage.

Wenerfelt, B. (1984). A Resource based View of the firm. *Strategic Management Journal,* 171-180*.*

Werner, N. (2008). Resource dependence theory, how well does it explain behaviour of organisations? *Management Review, 19(1),* 9-32.

Wheelen, T. L., & Hunger, J. D. (2013). *Strategic management and business policy: Toward global sustainability*. New Jersey: Pearson.

Wiig, K. (2004). *People-Focussed Knowledge Management*. Butterworth-Heinemann, UK.

Wijk Van, R., Jansen, J., & Lyles, M. (2008). Social capital, knowledge transfer and performance: meta-analytic evidence. *Academy of Management Proceedings, August 1,* 2008:1 1-6.

Willcoxson, L. (2000). Defining and creating a High Performance Organisation. *Australian Journal of Management, 4(1),* 100-106.

Wong, K. Y. (2005). Critical success factors for implementing knowledge management in small and medium enterprises. *Industrial Management & Data Systems*, *105(3),* 261-279.

Wood, F., & Sangster, A. H. (2008). *Business Accounting*: Vol.1 (10th Ed), Wood, Prentice Hall.

World Bank Report, (2009). Available at: www.worldbank.org/afr/ik/.

World Economic Forum. (2008). The Global Competitiveness Report 2008 2009. Recuperado el 3 de diciembre de 2008, tives/gcp/Global%20 Competitiveness % 20 Report/index.

World Economic Forum. (2012). *The Global Competitiveness Report. 2012–2013.* Geneva: World Economic Forum.

Yang, J. (2008). Managing Knowledge for quality assurance: an empirical study. *International Journal of Quality and Reliability Management, 25(2),* 109-121.

Yew, K. W., *&* Aspinwall, E. (2004). Characterizing Knowledge Management in the Small Business Environment. *Journal of Knowledge Management,* 8(3).

Yin, R. (2009). *Case study research: design and methods.* (4th Ed.) Sage Publications. Thousand Oaks, CA.

Young, S. I. (2009). The relationship between organisational fitness and business performance: specific evidence for SMEs. PhD. thesis, Auckland University of Technology, Auckland.

Zack, M. (2003). Rethinking the Knowledge-Based Organisation. *Sloan Management Review, 44(4),* 67-71.

Zack, M., Mackeen, J., & Singh, S. (2009). Knowledge management and organisational performance: An exploratory analysis. *Journal of Knowledge Management, 13(6),* 392-409.

Zheng, W., Yang, B.Y., & McLean, G. N. (2010). Linking organisational culture, structure, strategy, and organisational effectiveness: Mediating role of knowledge Business management. *Journal of Research, 63(7),* 763- 71.

Zhining, W., Wang, N., & Liang, H. (2014). Knowledge sharing, intellectual capital and firm performance. *Management Decision*, *52(2).* 230-258.

Zoogah, D. & Nkomo, S. (2013). Management research in Africa, past, present and future, in Lituchy, T.R., Punnett, B.J. and Puplampu, B.B. (Eds), Management in Africa, Macro and Micro Perspectives, Rutledge, New York, NY and London, pp. 9-31

APPENDICES

The list of Appendices consists of nine specific appendices as given below.

APPENDIX A: List of Financial Institutions in Uganda and their Codes

Bank	Tier	Bank Code	Years of Operation	Response rate	
				Frequency	Percent
ABC Capital Bank	C	1	5^{+}	5	2.3
Bank of Africa	C	2	5^{+}	8	3.8
Barclays Bank	C	3	20^{+}	28	13.1
Bank of Baroda	C	4	20^{+}	9	4.2
Cairo Bank	C	5	10^{+}	6	2.8
Centenary CERUDEB	C	6	20^{+}	8	3.8
Citi Bank	C	7	5^{+}	2	.9
Crane Bank	C	8	10^{+}	7	3.3
DFCU	C	9	20^{+}	8	3.8
Diamond Trust Bank(DTB)	C	10	20^{+}	12	5.6
Eco Bank	C	11	5^{+}	10	4.7
Equity Bank	C	12	5^{+}	7	3.3
Guaranty Trust Bank	C	13	5^{+}	10	4.7
Global Trust Bank	C	14	5^{+}	3	1.4
Housing Finance Bank (HFB)	C	15	20^{+}	9	4.2
Kenya Commercial Bank (KCB)	C	16	5^{+}	8	3.8
Tropical Bank	C	17	10^{+}	5	2.3
Standard Chartered Bank	C	18	20^{+}	6	2.8
Stanbic Bank	C	19	20^{+}	11	5.2
Orient Bank	C	20	10^{+}	9	4.2
United Bank of Africa	C	21	5^{+}	8	3.8
Post Bank	MDI	22	20^{+}	15	7.0
Finance Trust Bank (FTB)	MDI	23	5^{+}	5	2.3
Opportunity Uganda(FAULU)	MDI	24	5^{+}	3	1.4
PRIDE Uganda Ltd	MDI	25	5^{+}	7	3.3
FINCA Uganda	MDI	26	5^{+}	4	1.9
Total	**26**	**26**	**26**	**213**	**100.0**

APPENDIX B: Survey 2 Questionnaire on the HPO Framework

This questionnaire lists a number of statements with regards to your organisational unit. Please rate per statement, on a scale of 1 to 10, the extent to which this statement applies to your organisation. Give a number between 1 and 5 if the statement does not at all or does not apply, give a number 6 and 10 if the statement does apply or very strongly applies.

	Continuous Improvement & Renewal	
CIR1	Our organisation has adopted a strategy that clearly sets it apart from other organisations	
CI R2	In our organisation processes are continuously improved.	
CIR 3	In our organisation processes are continuously simplified.	
CIR 4	In our organisation processes are continuously aligned.	
CI R5	In our organisation what matters to the organisation's performance is explicitly reported.	
CIR 6	In our organisation both financial and non-financial information is reported to organisational members.	
CI R7	Our organisation continuously innovates its core competencies.	
CI R8	Our organisation continuously innovates its products, processes and services.	
	Openness and Action Orientation	
OAO1	The management of our organisation frequently engages in a dialogue with employees.	
OAO 2	Organisational members spend much time on communication, knowledge exchange and learning.	
OAO 3	Organisational members are involved in important processes.	
OAO 4	The management of our organisation allows making mistakes.	
OAO 5	The Management of our organisation welcomes change	
OAO 6	Our organisation is performance driven.	
	Management Quality	
MQ1	The Management of our organisation is trusted by organisational members.	
MQ 2	The Management of our organisation has integrity.	
MQ 3	The Management of our organisation is a role model for organisational members.	
MQ 4	The Management of our organisation applies fast decision making.	
MQ 5	The Management of our organisation applies fast action taking.	
MQ 6	The Management of our organisation coaches organisational members to achieve better results.	
MQ 7	The Management of our organisation focusses on achieving results.	
MQ 8	The Management of our organisation is very effective.	
MQ 9	The Management of our organisation applies strong leadership.	
MQ 10	The management of our organisation is confident.	
MQ 11	The management of our organisation is decisive with regard to non-performers.	
	Workforce Quality	
WQ1	The management of our organisation always holds organisational members responsible for their results.	
WQ 2	The management of our organisation inspires organisational members to accomplish extraordinary results.	
WQ 3	Organisational members are trained to be resilient and flexible.	
WQ 4	Our organisation has a diverse and complementary workforce.	
	Long Term Orientation	
LTO1	Our organisation grows through partnerships with suppliers and/or customers.	
LTO 2	Our organisation maintains good and long-term relationships with all stakeholders.	
LTO 3	Our organisation aims at servicing the customers as best as possible.	
LTO 4	The management of our organisation has been with the company for a long time.	
LTO 5	New management is promoted from within the organisation.	
LTO 6	Our organisation is a secure workplace for organisational members.	

APPENDIX C: Survey 3 Questionnaire testing the model

Maastricht School of Management (MSM)

6201 BE Maastricht Netherlands. The PhD. Research Questionnaire

Knowledge Management and High Performance: A Study of Financial Institutions in Uganda

Janet K. Bagorogoza (0712 525944, bagorogoza@msm.nl. jkyogabiirwe@mubs.ac.ug.

This questionnaire seeks help in assessing your organisation against known characteristics of high performance workplaces and knowledge management. An HPO is an organisation that concentrates on bringing out the best in people. You have been selected to participate in this study because of the strategic contribution you make to your organisation and you are central to the kind of information required in this study. Please, take off some minutes of your valuable time to fill this questionnaire. You are kindly requested to provide responses to all statements. The information you provide will be used for academic purposes only. Your response will be kept confidential. In case you are interested in getting feedback about this study, please, provide your contact.

Telephone_____**e-mail**_____

General Information. In this Section **(Tick the appropriate answer)**

Gender:

Male	Female

A. Highest Level of Education

Diploma	Bachelor's Degree	Master's Degree	Professional

B. Your organisational level:

Corporate/Head office	Division	Business Unit	Department	Team	Other

C. In which corporate life cycle phase is your organisation currently:

Start-up phase	Growth phase	Maturity phase	Revival phase	Declining phase

D. The function you work in:

Distribution/Logistics	Finance/Control	HRM	ICT	Sales/Marketing	Consultancy	R & D	Other staff	Othe r

E. Your function level:

CEO/Man. Director	Division manager	BU manager	Dep't manager	Finance officer	Controller	Project manager	Other

F. Is your organisation part of a bigger company (for instance a multinational)? Yes | No

G. The country of residence with the main office of your organisation: ----------

H.The industry of your organisation:

Profit	Non- profit	Government

I. Overall number of employees for the entire organisation:

Less than 50	51 – 100	101- 500	501- 1000	above 1000

J. Is your organisation listed on the stock exchange? Yes | No

K. Compared with other financial institutions what is your level of performance?

Poor	Low	Medium	High

Knowledge Management

Please, indicate the degree to which you are in agreement with each of the statements on this scale. Give a number between 1 and 5 if the statement does not at all or does not apply, give a number 6 and 10 if the statement does apply or very strongly applies.

	Knowledge Acquisition	
KA 1	Our organisation values employees attitudes and opinions	
KA 2	Our organisation has well-developed financial reporting systems.	
KA 3	We are market focussed by actively obtaining customer information.	
KA 4	Our organisation is sensitive to information about changes in the market place.	
KA 5	Our organisation works in partnership with international customers.	
KA 6	Our organisation gets information from market surveys.	
KA 7	We acquire knowledge through team work.	
KA 8	We can locate the source of information that we need.	
KA 9	We employ people deemed to have the expertise we need.	
KA10	Staff has access to all required information on-line.	
	Knowledge Dissemination	
KD1	Knowledge is disseminated on –the –job.	
KD2	Market information is freely disseminated	
KD3	We use specific techniques to disseminate knowledge	
KD4	Organisation uses technology to disseminate knowledge	
KD5	Our organisation prefers written communication	
KD6	Knowledgeable staff share their ideas with other staff.	
KD7	We conduct regular meetings to exchange experiences	
KD8	We use newsletters to disseminate information.	
KD9	Some of our staff discuss issues with professional associations.	
	Responsiveness to Knowledge	
KR1	We have adequate knowledge to respond to customers questions.	
KR 2	We have adequate knowledge to respond to respond to questions on competitors.	
KR 3	We respond to questions on technology.	
KR 4	We are flexible by readily changing products.	
KR 5	We are flexible by changing strategies.	
KR 6	Staff have access to information required to perform their job	
KR 7	Our organisation is flexible and opportunistic	
KR 8	We update our knowledge databases	
KR9	We have a well-developed human resource function	*

Describe any other knowledge management practices used by your institution that were not captured in this questionnaire……

The High performance Organisations factors

This questionnaire lists a number of statements with regards to your organisational unit. Please rate per statement, on a scale of 1 to 10, the extent to which this statement applies to your organisation. Give a number between 1 and 5 if the statement does not at all or does not apply, give a number 6 and 10 if the statement does apply or very strongly applies.

	Continuous Improvement & Renewal	
CIR1	Our organisation has adopted a strategy that clearly sets it apart from other organisations	
CI R2	In our organisation processes are continuously improved.	
CIR 3	In our organisation processes are continuously simplified.	
CIR 4	In our organisation processes are continuously aligned.	
CI R5	In our organisation what matters to the organisation's performance is explicitly reported.	
CIR 6	In our organisation both financial and non-financial information is reported to organisational members.	
CI R7	Our organisation continuously innovates its core competencies.	
CI R8	Our organisation continuously innovates its products, processes and services.	
	Openness and Action Orientation	
OAO1	The management of our organisation frequently engages in a dialogue with employees.	
OAO 2	Organisational members spend much time on communication, knowledge exchange and learning.	
OAO 3	Organisational members are involved in important processes.	
OAO 4	The management of our organisation allows making mistakes.	
OAO 5	The Management of our organisation welcomes change	
OAO 6	Our organisation is performance driven.	
	Management Quality	
MQ1	The Management of our organisation is trusted by organisational members.	
MQ 2	The Management of our organisation has integrity.	
MQ 3	The Management of our organisation is a role model for organisational members.	
MQ 4	The Management of our organisation applies fast decision making.	
MQ 5	The Management of our organisation applies fast action taking.	
MQ 6	The Management of our organisation coaches organisational members to achieve better results.	
MQ 7	The Management of our organisation focusses on achieving results.	
MQ 8	The Management of our organisation is very effective.	
MQ 9	The Management of our organisation applies strong leadership.	
MQ 10	The management of our organisation is confident.	
MQ 11	The management of our organisation is decisive with regard to non-performers.	
	Workforce Quality	
WQ1	The management of our organisation always holds organisational members responsible for their results.	
WQ 2	The management of our organisation inspires organisational members to accomplish extraordinary results.	
WQ 3	Organisational members are trained to be resilient and flexible.	
WQ 4	Our organisation has a diverse and complementary workforce.	
	Long Term Orientation	
LTO1	Our organisation grows through partnerships with suppliers and/or customers.	
LTO 2	Our organisation maintains good and long-term relationships with all stakeholders.	
LTO 3	Our organisation aims at servicing the customers as best as possible.	
LTO 4	The management of our organisation has been with the company for a long time.	
LTO 5	New management is promoted from within the organisation.	
LTO 6	Our organisation is a secure workplace for organisational members.	

Provide any other view in relation to the above organisational characteristics**.....**

.....

Firm Performance

	Firm Performance	
	Financial	
HP1	Compared with the industry average, we are more profitable.	
HP 2	We have been registering better returns than any other firm in the industry.	
HP 3	We have the highest portfolio in the industry.	
HP 4	The firm's outreach is so far the best in the industry.	
HP 5	Our market share is the highest in the industry.	
	Non -financial	
HP 6	We have a high performance culture.	
HP 7	We have superior capabilities and execution of duty.	
HP 8	Over the past five years, our organisation met its performance objectives.	
HP 9	We have high–performing people, in the jobs where they can have the most impact.	
HP 10	Our front line consistently execute well on activities that are critical to success.	
HP 11	In general, our organisation is performing better than it did five years ago.	
	Competitive Advantage	
CA1	We can sustain our operations with limited funding	
CA 2	We serve our customers in a short time	
CA 3	Our customers can easily access our services	
CA 4	We can succeed in service delivery amidst resource constraints	
CA 5	We achieve most of our set targets	
CA 6	Our organisation is result oriented	
CA 7	Our organisation has the lowest costs per transaction	
CA 8	We have capacity to change	

Please suggest any strategies that are used by your institution to improve on its competitiveness and performance.

.....

APPENDIX D: Semi-Structured Interview Guide for Managers

This part contains the questions that we asked to the FI managers. The questions were categorised into two key areas as follows: (I) background information about the manager, (II) General information on KM and performance in FIs.

I. Background Information about the Manager

1. What is your educational background?
2. How long have you worked for this institution?
3. What are your roles and tasks in this organisation?
4. What are some of the critical experiences, both positive and negative; you have got on this job?

11General information on knowledge management and performance in FIs

1. What is your view on KM?
2. What are the tools and methods used in KM in your organisation?
3. Do you have a KM strategy for your institution?
   a. What is your KM strategy for KA?
   b. Next to recruitment how do you acquire knowledge to improve performance?
   c. How is the mentorship arranged in your work environment?
   d. How does the FI handle performance appraisals?
   e. How does the FI handle the issue of employee retention?
4. How is KM practiced or implemented in your organisation?
5. How is your FI performing with respect to profitability and productivity?
   (a) How does the FI approach, the market share?
   (b) Which knowledge acquisiton activities are conducted in your organisation?
6. How does the FI remain competitive?
   (a) What customer services are important products of KM?
   (b) How has KM contributed to the FI products?
7. How is your performance relative to your competitors?
8. How does the personnel interact and shared their experiences?
9. Which approach or strategy do you believe to be effective to carry out the KM to improve on your performance and why?
10. What masures are taken in the FIs to achieve HPO?
11. Do you consider your organisation as high performing?

APPENDIX E: Extracts of the Interview Transcriptions

We have had 16 of interviews and below we present four extracts. Two are from commercial banks (Appendix E 1) and two from MDIs (Appendix E 2) which we named Case 1 and Case 2, respectively. We end with the personal experience in Appendix E3.

Appendix: E1 Case 1 Commercial Banks
(Example 1 from Case 1)

Poly is a Manager in charge of SME at Bank C12

INTERVIEWER: The interview is about the role of KM in the FIs in Uganda. Tell me about your position at C12 Bank?
Interviewee P: I work as head of SME (Small and Medium Enterprises) Equity bank Uganda.
Interviewer: What are your qualifications?
Interviewee P: I hold a Bachelors Degree in Business Administration specialising in accounting and have done some other small qualifications but that one does not count a lot.
Interviewer: Do you understand the concept of knowledge management?
Interviewee P: yes I understand it! But the way I understand it. My understanding may be different from the way you understand it. You might be able to advise me on how to talk about knowledge.
Interviewer: This is in terms of human resources because knowledge is with the human resources. If then do you have any understanding of such in that area?
Interviewee P: Of course Yeah, human resources are considered especially when we are filling vacancies and it starts from head office and goes down to the branch levels.
Interviewer: In your view how do you comment on the way knowledge is managed at C12 Bank?
Interviewee P: That one takes me back to the human resource. The human resource identifies people from other banks. For example looking at where I was working from before that is Stanbic and Centenary bank. We look at the employees from these banks in Uganda then we look at people who have experience and in doing that, we intend to isolate people who have no experience or we go for people who have just finished currently but in this case we go for the cream ones. We realised that people who have experience come with what you want. For example if you want clients. I know that; that one will come with his clients he has been handling from may be Stanbic or Centenary bank and he won't be like the one who has just come from the University and then join the bank then go to look for business, he would be like the one who has experience.
Interviewer: What about those ones who come without experience?
Interviewee P: Those ones without experiences we recruit them in positions but we train them. They begin with lower positions of course and then we train them slowly by slowly.

That is how we have been doing it but not the big position on entry i.e. fresh beginners occupies the junior positions on entry.

Interviewer: Then what about those ones who come with experience? What do you do with them in terms of enabling them to help others?

Interviewee P: Of course; yes when we get those ones who experienced we give them good positions and we make them to train these people who have not been in the same industry most especially we get people who have just finished University but these people who have been in the same business for some time, we train through the same knowledge and they share with their famous but at the end of all we come with the same result.

Interviewer: What about some other knowledge areas not necessary with human resources such as the industry researches that you do? How do you manage it?

Interviewee P: Most of the time you know with banks there is credit funding because for us at end of it all, we are looking at targets and other things within the industry, we don't mind about them. We go to here the bank is benefiting but surely when you talk about other industry like economy, how the country is developing, the political issues, we tend to hear but we don't get involved.

Interviewer: So how does the C12 Bank use such knowledge to become more competitive?

Interviewee P: Actually people with experience as I said, we get good guys from other banks give them good jobs and of course these people always come with their customers. We normally say like a loan's office to come with his or her portfolio, so if somebody is like from say Centenary bank Entebbe road, we expect that he/she could have handled at least 50 customers. So if such a person is given a job and he/she comes with 50 customers, then you see that the bank changes because if you take a customer from one bank to another then it may involve buying out that customer and the portfolio of his former bank reduces and that of Equity increases. Of course we do it as a strategy on how we can increase our loan portfolio by considering people who are already in the field and people who have been in good organisations like Centenary bank. Actually, we are neither targeting Centenary bank because the products we are offering are nor less like those ones of Centenary bank. Other banks we target are Stanbic, Standard etc.

Interviewer: So by that would you say that C12 Bank is highly competitive?

Interviewee P: Yeah, compared to the time we have been in the field and having brought in these experienced people, other banks have started low feeding it. Because if you go to the market and the customer says, oh the dealing with this bank, then for us what we do, we say that if interest rate has been at 24% for us we put it at 20% interest rate. Of course if you consider 20% interest rate, people tend to come and of course that is competitiveness putting pressure on other banks in doing this we have been able to have a competitive advantage over the other banks in the recent past.

Interviewer: What other competitive areas other than period and interest rates?

Interviewee P: We have a lot of products. We have so many branches country wide, we promote agriculture, we consider all government employees and we give a long time of loan repayment and in so doing.

Interviewer: So how do you achieve C12 Bank on how they utilize their knowledge resources?

Interviewee P: Yeah, you see the whole issue is about training. Everybody can be an employee so long as there are rules and procedures and guidelines. Everyone can be a good employee so as long as he is trained. The big issue is that we don't have to wait for that time. We want cream people, we always want those who have been found, who know what is happening because if you are to train someone let's say for five months, you go to the market you find that person has been identified by another person who is in another bank. So we always tend to take it aside but at the end of it all, we have a belief that anybody who is trained well can be a good employee.

Interviewer: Ok, that is about the skills, what about their attitudes?

Interviewee P: Attitudes, like a human nature, you can't change it. There are some people you find that early in the morning don't smile but with the banking industry customers come with high expectations and if you welcome them with your moods then they will pay you in the same manner that this bank doesn't know what they are doing. The attitude is also about training and we have always told our employees to always treat customers like eggs because without customers we are nowhere. So everybody can change attitude. Even if somebody didn't have supper, you just don't let us know that I didn't have supper at night but you pretend and that way people have at least been able to change.

Interviewer: Do you think the bank will allow you to train new employees and to get the cream because these tend to come with high salary demands?

Interviewee P: I entirely agree with you because they come with a cost. We do expect if we give you a job not even training alone will change you, but what you are doing and by the time you go through the interviews we are sure that you will meet our standards.

Interviewer: How do you rate your performance in the industry? Are you on top, down or you are just serving in the middle there?

Interviewee P: Actually I can't say that we are on top and I can't say that we are down. What I am saying is that we are not on top, first of all we are just new in the market, we found other big banks that have been on the market and have been demanding the market but where we have reached, we at least in the middle and the customers of at least 80% know that C12 bank exists.

Interviewer: So if there were ten banks, in Uganda what position would you be?

Would you be the first, second, 3rd or somewhere?

Interviewee P: It would be like seventh

Interviewer: That is below average

Interviewee P: Below average

Interviewer: So you are not doing well if you are not ranked from the first to the last being the tenth. Where would you be?

Interviewee P: I would insist that we would be the seventh if you are to consider other things like profitability etc we are not doing badly but we are also not doing well. We are in the middle.
Interviewer: What do you think is causing that?
Interviewee P: Ah; what I can say; it is all about the economy. The economy is not doing well and being new on the market, we are just trying to finance ourselves. At least we have 70% market share but if we are to be given one year, we shall be somewhere.
Interviewer: Has there been any effort by C12 bank to improve their performance**?**
Interviewee P: Yes, it has been there because we started with customer awareness about C 12 bank. We started giving promotions; we participate in lending in every district. In so doing customers will have to know that C 12 bank exists and after that people will start enrolling and at the end of the day we shall increase on customer base. By the end of 2010, we expect, we shall have moved a big step.
Interviewer: Do you have a performance plan for improving**?**
Interviewee P: We do have targets and at the end of the every month, we call all branches, we have to review, we go to credit, item also deposits then we see how people have deposited within the month compared to credits, how much people have borrowed . there is a time when we have a lot of deposits and the money is redundant and you know with the bank how it can make good money, it is by lending out that money; so every month we do have reviews, we see how much customers have deposited and also we compare with how much we have lent out. And also when we are outside of credits we normally see how much people have already borrowed, how much have been paid monthly because loans are paid monthly. For us we don't have quarterlies; all loans must be paid monthly for example all loans taken out here they been paid monthly if not what are the causes so we try to check on our debt recovery
Interviewer: What about other areas like profitability?
Interviewee P: Profitability, we normally consider the costs involved when we are lending out our loans and the people who are not paying, then the insurance has to pay for example you find that there are some loans where by somebody bought a vehicle, it was insured but insurance got expired and we didn't, so that we write that one as a loss.
Interviewer: That is what I wanted to discusses with you and thank you very much.
Interviewee P: And also thank you for choosing me.

(Example 2 from Case 1)

MARIAM is the manager of a branch of C 20

INTERVIEWER: The discussion is on the role of KM in the establishment and sustainability of high performance organisations in FIs in Uganda. Kindly tell me about your position at C 20.

Interviewee M: Am the excel centre manager. This centre deals with high value customers. These are customers who have or take more than 20 million shillings management realised such customers needed special attention and they created this section.
Interviewer: Do you understand the concept of knowledge management?
Interviewee M: Yes I do
Interviewer: What does it mean according to you?
Interviewee M: Knowledge management you look at the attitudes, experiences and skills of the employees.
Interviewer: How do you acquire that knowledge here?
Interviewee M: First of all, there is on job trainings, we look at the best people, people who are approachable, willing to learn, who are flexible in our service. Then people who are pleasant to our customers and we also look at their attitudes. If some is positively interested to acquire the knowledge then we train him. On job training basically, we take the best from each branch and we assign him responsibility of training others.
Interviewer: How do you store that knowledge?
Interviewee M: We have the service quality team and consultants that carry out research for us.
Interviewer: How do you disseminate or share that knowledge?
Interviewee M: Through service meetings every Monday, we also have a feedback from our customers who can give feedback by filling the form which they can find at every toll and the fill and put them in the feedback box.
Interviewer: What other ways of sharing experience?
Interviewee M: We train, like personally, we do service sessions with teams taking different products and we discuss on how best they can help the customer. We train them on how they can do the work better through our experience we teach them on how to do the job not necessarily using the knowledge we acquired from school.
Interviewer: In your own opinion, what is your comment about the way knowledge is managed at C20 of late?
Interviewee M: Of late we are losing knowledge resources because of competition and the new people who have entered the market and they are paying more. So surely we are losing human resources who seek for better payments as to some payment is very important and to some people it's not.
Interviewer: What about those who stay? Are they managed well?
Interviewee M: Yes they are managed well. If you look around, it's very rear to find people who have stayed on the desk for more than one year. People are rotated frequently so that they don't get bored. People are motivated by increasing on their tasks, and rotating them in different job so that they acquire more knowledge.
Interviewer: So do you think KM is at its best? Or some where there is something that needs to be done so as to make it better?

Interviewee M: We need to do more of internal recruiting and recognising people who have been inside rather than recruiting from outside. People get de motivated when they see somebody from outside coming in to take over leadership

Interviewer: Do you think the knowledge resources you have are contributing to the better performance of C 20?

Interviewee M: Yes they do because, for example we have the customer care and the sales team which have to give information to customers and they do better. But everyone in the bank has a sales target and therefore required to contribute.

Interviewer: Do you regard C20 as a highly productive bank or it is not as productive as you would want?

Interviewee M: It is a highly productive bank.

Interviewer: What makes you say that?

Interviewee M: We bring in a lot of revenue, we have tried to reduce costs in all areas and everybody is trained on how to manage costs. A centre manages its costs so if you don't manage well your costs, you will get less bonus as compared to others and salary increments will also be low.

Interviewer: What about other productive area?

Interviewee M: Of recent we are creating products that are user friendly to our customers. Before we used to be so rigged everyone used to know C20 as a Whiteman's bank but of late we have tried to break down even to the lowest person by creating products that suits them. We have also increased our customer base and you can easily realise it from the market as people now know of C20 bank. We have put up branches in areas no one ever expected. We have a branch in Kikubo, in Ndeba etc. We tried at least we go down and we increase output.

Interviewer: Where would you place C20? Do you think you are in the middle, on top or somewhere below?

Interviewee M: We are among the top FIs. I don't have the statistics now because they are not yet released but at least we are in this range.

Interviewer: Has C20 Bank made any deliberate efforts to increase performance?

Interviewee M: Yes it has. It has increased on the trainings, then it used to do and it has also tried to increase on the internship trainings to students from Universities to give the students exposure before they join the market. We have also gone out to do trainings for our SME's. We also have been involved in doing and sponsoring community work i.e. to give back to the community.

Interviewer: Have you got like periodic performance targets and the strategic plan? How do you manage that?

Interviewee M: Yes we have got software recently which we use to set targets for each and every individual in the bank depending on the overall objective of the bank. This is reviewed every six months but managers go out to do it every month because we won't wait for six months to review staff performance. We keep on monitoring and reviewing by looking at core values of the bank for example how you have been responsive, courtesy and being

creative and we also look at the objectives. So there is constant communication and reviews to help people become better in their areas where they do their jobs better. We have targets where everybody is required to hit every month.

Interviewer: So what happens if for example there is consistence poor performance by an individual?

Interviewee M: Once you review and find out that the staff is good in one area; because a staff may be poor in sales but very good in service. So you can recommend for that good service. However, if he consistently performs poorly, then we sit down and see what problem the individual has and we look for a solution.

Interviewer: That is what I mainly wanted to discuss with you. Thank you.

Appendix: E1 CASE 2 Micro Finance Deposit taking Institutions

(Example 1 from Case 2)

GEORGE is a branch manager of MDI 23

Interviewer: The discussion is about the KM in the establishment and sustainability of high performance organisation in FIs in Uganda. Tell me about MDI 23?

Interviewee G: It is an MDI licensed by bank of Uganda. It takes deposits and lends it in terms of short term loans.

Interviewer: Tell me about your position at MDI 23?

Interviewee G: I am currently a branch manager at our corporate branch on Kampala road and I am charged with the task of creating business for the branch - that is mobilizing savings, loans portfolio and manage people. I coordinate activities and operations at the branch.

Interviewer: Do you understand the concept of knowledge management?

Interviewee G: The way I understand it is "developing people's capabilities regardless of their background may be from the academic background for example. As you are, we recruit people from all professions, different academic disciplines, we get on people who have done agriculture in credit, some do sales others have done science course, others arts and all these work in all departments. Regardless of what one has specialised in, we do rotate them so that they can get to know the general operations within the institution. For example, one would have with agriculture degree and he is employed in credit but after sometime, he can be taken to the back office and he becomes accountant.

Interviewer: What is your comment about the way knowledge is managed at MDI 23?

Interviewee G: I would say it is not so perfect but personally I have done it myself. I did accounts, then I started as a branch accountant, then did some credit at one time I was heading loans departments. Actually there was a branch where I headed accounts and sales that is how I acquired some knowledge in credit and I got a promotion. A part from the office assistants who are on contract basis the rest of the staff are free to work and get promotion anywhere depending on how their immediate supervisors view or see their capabilities. This is actually done by the branch managers. We do appraisals and make recommendations to management. If for some time let say 6 months or a year the person is found to be good in mobilizing customers, he can be promoted e.g., head loans and he creates for us more customers.

Interviewer: So do you say its excellently done, better or poor?

Interviewee G: It is better because I told you at the moment almost 100% of all branch managers were once branch accountants, or credit officers, then they moved through the stages to head of loans now branch managers. Actually we have now recruited a few from Post bank and Pride. Four branch managers in numbers have been recruited.

Interviewee G: As I said, we have been recruiting from within and we do training and workshops.

After every 3 or 4 months, we get grants for capacity building and its only done inform of trainings, workshops and seminars. Managers also get refresher courses before they go to their stations and when they come, they are signed to mentor. When a new person has been recruited, he is assigned to someone let's say chief accountant for mentorship if he joined the accounting department. After the probation, the mentor writes a report to the HR and the confirmation is based on that report. Where gaps have been identified, they would be put in that report and may be the probation may be extended or can confirm but the gaps are told to the person and he is given time to learn. That is how we do it.

Interviewer: How has this contributed to your growth?

Interviewee G: To talk about the MDI's, right how we are the best in terms of quality, in terms of portfolio volumes we are second to Pride. In terms of quality we are the best especially in the last one year or so. We have been able to close every month in a year within the acceptable standards of B.O.U. Because of our quality, almost every bank is admiring our staffs.

Interviewer: In your own view, what do you think MDI 23 should do in order to improve the way it is using her knowledge resources?

Interviewee G: They need to give a lot of power to the managers. Management takes long to make decisions.

For example as I told you before, a manager may make a decision for someone to be switched to another department but this takes long to be done. Because may be in their opinion the HR thinks that this person who has been in operations may not handle credit but the branch or operations at the branch knows it possible. As a manager sometimes you feel you don't have enough powers to recommend somebody for promotion. We have parameters for performance for example if someone becomes head of loans he must have attained a certain volume of loan portfolio and a certain percentage of quality. There could be this person who has big volume of portfolio but recovery is not good and therefore quality is low but you push or help, you can recover jointly. If we have such people, they need to become head of loans because they can mobilize and other will be there to recover. It is now days difficult to see one being promoted to head loans if he has Portfolio at risk (PAR) or the percentage of those loans that given out that is not within limits. So you must match the two which is difficult sometimes.

Interviewer: There is where you said you are number one, and then in some areas you said you are number two? Where would you rate yourself in the industry?

Interviewee G: I don't have the statistics, I still maintain we are number one in terms of quality and in portfolio volumes I would also say we are number one because Pride which has big volumes, has been stagnant for the last two years at that volume of their I would not mention it but finance trust has been able to grow. Every month we have increased performance but Pride bank has been stagnant with portfolio of approximately 42-45 billion for a period of over two years.

Interviewer: So would you say that MDI 23 is a high performing institution?

Interviewee G: Yes, and the rate at which we are growing is very high within the industry
Interviewer: Has there been any deliberate effort to sustain or even make performance better?
Interviewee G: Yeah, actually as I told you right now we are look at commercial bank and that is one of the areas that is going to improve our competitiveness and make us better. The MDI act for example lets us start from the volumes; the loan maximum amount depends on your core capital. Apparently what we are disposed should be not more than one percent of the core capital. So accordingly our core capital is 70–76 million which we are authorised to lend. We have seen clients who come for 100- 200 million and we can't give them because of the regulations. We have also groups from 250 – 800 and we cannot serve them. The time limit of two years maximum is also a negative factor because if you gave 100 plus million, one would not be able to pay it in the maximum of two years. We also realise that in the MDI industry, the interest rate is high because our operating costs are high since we are still on borrowed funds. The cheap source which is savings is just growing.
Interviewer: So have you got periodical performance targets?
Interviewee G: We have actually weekly and monthly performance targets. So that is how we measure increasing performance. Looking at people for example in the customer care department the number of accounts they open every day is high. We have weekly performance tools and we track them on a daily basis. For example how many transactions has a teller made in a day, how many errors, posts in a day? Then loans disbursed in a day, loans mobilised and how many clients have defaulted in a day and so on. That is how we measure performance and we do it daily, weekly, and monthly.
Interviewer: Why do you do that? Is it a performance measurement?
Interviewee G: It is a performance tool and a motivational tool. What you are calling KM for example if an individual is failing to open a certain number of accounts per day or failing to recover a certain percentage of loan, then you don't need even to wait for six months, then you take a decision now and during that time, you are able to see where the person has gaps or where he has performed best so you will be able to switch.
Interviewer: That is what I mainly wanted to discuss with you and thank you for your time.

(Example 2 from Case 2)
Nicole is an assistant Human resource manager at MDI 26

INTERVIEWER: The discussion is one the role of knowledge management in the establishment and sustainability of high performance organisations in financial institutions in Uganda. It's a PhD study and your organisation has been chose as a case study. Tell me about your position in MDI 26
Interviewee N: I am the Assistant Human resource manager
Interviewer: How long have you worked with MDI26?
Interviewee N: Three years

Interviewer: Do you understand the concept of knowledge management?
Interviewee N: Yes
Interviewer: How do you understand it?
Interviewee N: It all starts from identifying people's knowledge, being able to store it and also utilising it optimally and developing it sustainability.
Interviewer: In your opinion what is your comment about the way knowledge is managed at MDI26?
Interviewee N: They have put initiatives in terms of identifying people's capabilities in what they know and what they do best and then as a result place them rightly so that can optimally get from them what they want in terms of their knowledge and skills and also take them through training that are already predetermined through an annual plan.
Interviewer: How does your organisation manage the sources acquisition and sharing of knowledge?
Interviewee N: It all starts from recruitment. At the entry level we run external adverts and also at managerial level but for middle management position, we use staffs that have been developed through the ranks. The recruited staffs are taken into a comprehensive training program and then they are attached to mentors for a period of time at least on quarterly basis they are subjected to a number of after which we do evaluate both their performance to see whether there is any value added? Whether we are getting a return on investment (ROI) the training we have had and then we also have what we all an international form of finance being an international organisation and here there is an exchange of ideas between the different affiliates and for time through seminars, workshops we also maintain a training library which is our source of stored knowledge. We also try to retain the best people we have by having a career path plan which they can develop so as to continue to use their skills.
Interviewer: What are some of the knowledge resources that you have here?
Interviewee N: The biggest is the human knowledge resource which is in their mind and the organisation has no big control over. They go with it when they come. What is important is placing it right and using it right so we continuously develop and try to retain it. The other resources are the library which we have developed and where we keep manuals that we develop from time to time.
Interviewer: How do you share the existing knowledge resource?
Interviewee N: We have a succession plan and it's clearly defined. So we decide on when someone should be taken through that process. Also a part from mentoring, there is also delegation when a person is given tasks and instructed what to do. When we have trainings for management for example you identify potential managers from supervisors. We also identify mentors and coaches who have been trained where inexperienced people are attached so that knowledge is shared. When you look at our trainings 70% are internal trainings and the resource persons that facilitate them are the experienced staffs.

Interviewer: Considering your knowledge resources do you consider MDI 26as highly competitive?
Interviewee N: Yeah
Interviewer: What indicates that MDI 26's competitiveness?
Interviewee N: Our competitiveness in terms of staffing or generally?
Interviewer: Generally, what do you mean?
Interviewee N: Our staffs are competed for by other banks do the exposure and the risks they posses. This shows how competitive we are.
Interviewer: Do you think MDI 26is maximising the use of the knowledge resources?
Interviewee N: Yes we are by ensuring that we go an extra mile to assess each staff's competence and the profile each individual's competence and we place them in position where their skills and competences can be best utilised. We also direct personal and career done/apparent plan, people are developed into higher positions based on the experience, skills and the knowledge they have acquired from time to time.
Interviewer: How do you use these knowledge resources to become competitive generally?
Interviewee N: I think it comes from the application of the knowledge. That is; continuous application of knowledge in our day to day work, the use of knowledge from time to time in our operations, and the reviewing of the gaps.
Interviewer: In your own opinions, what should MDI 26 do in order to maximize the knowledge it has?
Interviewee N: There is need to have deliberate retention program that will keep the experienced staffs within the organisation because when they go, they definitely go with their knowledge and also to consolidate and streamline the succession, planning and probably the executive programme.
Interviewer: How do you rate MDI 26's performance with her peers? Is it on top, middle or down?
Interviewee N: It is in the middle.
Interviewer: So has there been any effort to improve performance?
Interviewee N: Of course the efforts are there to improve performance. This ranges from reviewing performance on the monthly basis unlike the former way where you would review either quarterly or semi –annually. We have adopted a balance score card kind of performance management tool where we try to make everybody accountable for their performance. So we put it down and cascade it right from the target level, to the operational level and to the individual even this objective for the organisation, what can you do for the organisation, what is your contribution and how can it be measured?
Interviewer: So you have a performance plan
Interviewee N: Yes we do
Interviewer: Ah, this is what I wanted to discuss with you and may be to thank you for the time.

Appendix: E3 Case of KM: A personal Experience

An example of such low KM sensitivity, effectiveness and sensitisation can be seen from this incident I personally experienced, typifying our developing countries. Since it is an important personal experience I will go in detail. During my research period, I was in one of the banks under investigation looking for data, and also seeking an appointment to interview the managers and some of the staff. A customer came requesting to transfer funds to an account in Europe. She wanted a quick transfer as her business was at stake. She provided the details of the Bank in Europe and all the necessary information. After filling all the necessary paper work, the banking officer told her they would call her following day, to confirm the transfer. I followed this experience by getting the contact of the client who I linked up with the following day. They called her insisting they wanted the "Swift Code" of the Bank in Europe. They insisted the IBAN Code she had provided was not enough.

The transfer had now entered two days. On the third day she moved into the bank, and met the manager of the branch again. The branch manager insisted they could not make the transfer without the Swift Code. The customer confirmed to them that she had some time earlier used the same information she had provided to them, to make a money transfer using a different Bank. She told the manager she was ready to go to another Bank since they were failing to execute her transaction. She asked the branch manager to use their internet. She went to the Google search engine and entered a request for Swift Codes for Banks in Netherlands; a list of about 250 codes flowed out for all the banks in Netherlands, including the one where the customer wanted to transfer the money to. The Google search engine had first indicated that Swift Code is also known as BIC Code. Now all this information was in the information the customer had given to the Manager and her staff, but due to ignorance had failed to interpret it and had failed to know that BIC Code was the equivalent of Swift Code, at the cost of three days' business for the customer.

Lessons:

1. Even those who have computers even at the level of Bank Managers have little knowledge in use of the computers, in this globalised market.
2. A whole Branch Manager of a Bank, and her staff, did not know how to execute an elementary transaction which is a daily necessity in this modern era of the internet globalised economy (e-Commerce).
3. Even though they have desk top computers and lap tops connected to the internet by the Bank, usage of the internet and accessibility to information via the search engines is still a mystery to third world Managers.
4. This is a quick example of how KM practices are so low in developing countries typified by Uganda. Knowledge acquisition, knowledge dissemination, and knowledge responsiveness are very rudimental and the desire for aggressiveness and sensitisation

of KM practices would transform their performance fundamentally, and put them at higher competitive levels.

5. The foreign owned banks who have accumulated some of this knowledge have either kept it to themselves or the locally owned banks have not been vigilant enough to learn new skills. That is why the customer told the Branch Manager that she was ready to go somewhere else where they could ably make the transfer.

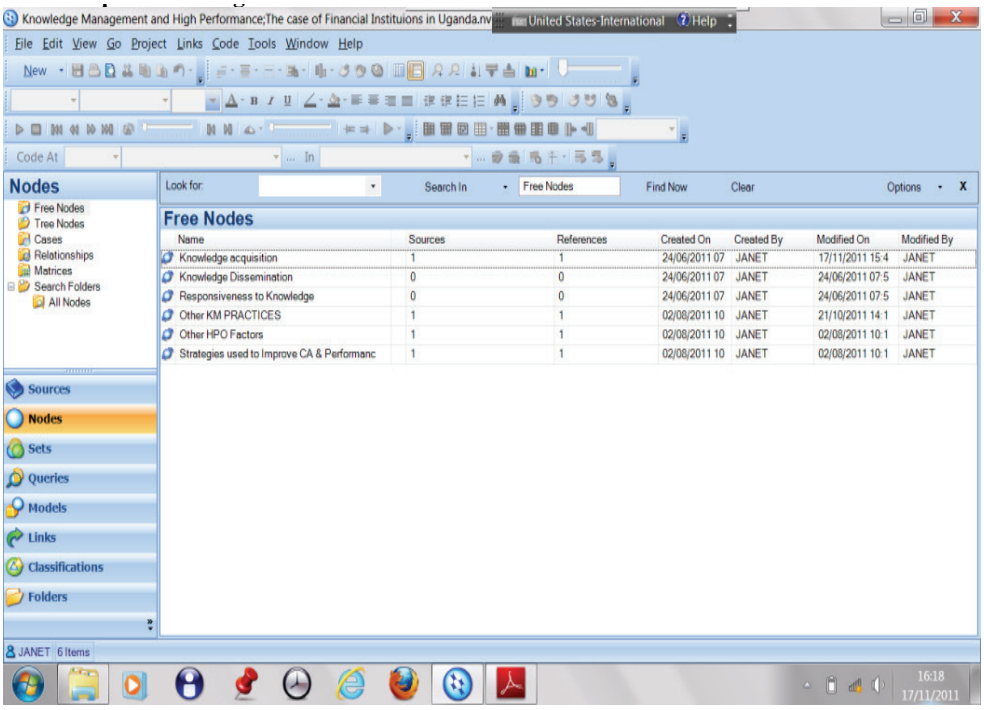
From this experience I learnt many aspects immediately; I could see many other factors at play from the Branch Manager and her team. I could observed that: (1) For the Branch Manager, this was a new experience and she had learnt that it was her own little knowledge, yet she had the information in her computer readily connected to the internet; she learnt that in future she could search the net using, a search engine like Google; one could see that from this transaction, she was anxious to improve on her skills. (2) The rest of the staff who had been sapped into this debacle were also ready to learn, as this was a new challenge and yet they were in charge of the Branch together with their Manager; one could feel it was their desire to improve on their operations from that experience. (3) As a long term measure, the branch manager sensitised her staff on the necessity to go for further training in computer knowledge so that they get more exposed to what is happening in the modern world with its ever extending wider market. She said it was necessary to upgrade their skills as the challenges ahead were highly competitive. (4) Even though it was a shock at the beginning, their ignorance was taken in good faith and was ready to face higher challenges related with new technology. One could see that the manager and her team were ready to learn together from such a challenge, since it affected their performance as a team. (5) Whereas the transaction had begun with a front officer in charge of receiving cheques, the process quickly involved other staff members, including those from the loans section, as consultations were made. The branch manager was involved because of the issue of Swift code became apparent. They all openly shared their lack of knowledge/experience for this transaction, until it was finally resolved.

In conclusion this was good experience of KM practices and HPOF at play, as I could see that the Branch Manager and her team were now looking at a higher performance in their operations. It was like a fire had been ignited in their activities.

APPENDIX F: Analysing qualitative data. An example of Case Nodes

To manage the data effectively we disaggregated it, breaking it down into manageable segments that we refer to as *nodes and identified or named the segment as given in the figure below.*

An Example of Coding Cases in NVivo



APPENDIX G: Table of Asset & Market Share among FIs in Uganda.

Asset Allocation among Commercial Banks as of December 2013

It is estimated that asset allocation among the 25 operational Ugandan commercial banks, at that time, broke down as follows:

Assets & Market Share among Commercial Banks in Uganda

Rank	Bank	Assets (USD) Millions	Market Share	Number of Branches
Total	**Twenty Five**	**6,320**	**100.0**	**500+**
1	Stanbic Bank	1,300	20.5%	91
2	Standard Chartered Bank	965	15.8%	12
3	Crane Bank	575	9.1%	38
4	Centenary Bank	573	9.1%	62
5	Barclays Bank	496	8.2%	46
6	DFCU Bank	474	7.5%	30
7	Citibank Uganda	300	4.9%	01
8	Bank of Baroda	279	4.6%	14
9	Housing Finance Bank	220	3.5%	17
10	Orient Bank	200	3.2%	20
11	Bank of Africa	178	2.9%	33
12	Diamond Trust Bank	134	2.2%	20
13	Kenya Commercial Bank	131	2.1%	14
14	Equity Bank	123	2%	39
15	Imperial Bank Uganda	87	1.4%	05
16	Tropical Bank	84	1.4%	11
17	United Bank for Africa	60	1.0%	09
18	Eco Bank	60	1.0%	11
19	Global Trust Bank	40	0.7%	21
20	Guaranty Trust Bank	40	0.7%	07
21	Finance Trust Bank	37	0.6%	33
23	Cairo International Bank	30	0.5%	05
23	NC Bank Uganda	25	0.5%	01
24	Bank of India (Uganda)	25	0.5%	01
25	ABC Capital Bank	12.5	0.2%	02

Source: *Bank of Uganda*

Market Share of the total Revenue of the sampled FIs

		Market Share of FIs 2013- 2009									
#	*Bank Code*	*2013*	*2012*	*2011*	*2010*	*2009*	*2013*	*2012*	*2011*	*2010*	*2009*
1	**C 19**	284,985	348,918	299,741	313,925	291,172	28.56	34.01	35.86	41.48	43.17
2	**C 6**	209,181	183,589	141,105	146,544	123,744	20.97	17.89	16.88	19.36	18.35
3	**C 8**	192,183	183,943	146,609	106,015	80,450	19.26	17.93	17.54	14.01	11.93
4	**C 7**	70,495	83,643	76,748	35,190	36,437	7.99	8.00	7.75	0.49	0.50
5	**MDI 24**	27,219	25,467	18,615	31,052	36,818	7.07	8.15	9.18	4.65	5.40
6	**MDI 25**	42,148	38,592	31,029	22,312	19,784	4.22	3.76	3.71	2.95	2.93
7	**C 22**	40,430	34,684	26,545	12,222	9,773	4.05	3.38	3.18	1.61	1.45
8	**MDI 23**	29,839	26,722	14,465	11,915	9,939	2.99	2.60	1.73	1.57	1.47
9	**C 20**	79,731	82,136	64,821	3,746	3,342	2.73	2.48	2.23	4.10	5.46
10	**C 21**	21,465	18,376	16,292	73,890	62,988	2.15	1.79	1.95	9.76	9.34
TOTAL		**997,676**	**1,026,070**	**835,970**	**756,811**	**674,447**					

Note: The total revenue for FIs was: 2013, ('000Shs), 997,676; 2012, ('000Shs) 1,026,070; 2011, ('000Shs) 835,970; 2010, ('000Shs) 756,811; and 2009, Ug Shs Millions ('000Shs) 674,447.

APPENDIX H: The Formulae for computing the ratios

Profitability

Gross profit ratio = Gross profit / Net sales. Net profit ratio = Net profit/Net sales
Net income = Interest on deposits and placements
Interest on loans and advances
Interest on investment securities

Return on Common Equity/capital employed (ROCE): it measures a firm's profitability by revealing how much profit a firm generates with the invested funds by its shareholders. It thus illustrates that what is important is not only how much profit has been made but how well the capital has been employed by the managers and the board of directors
The formula for computing Return on Capital Employed (ROCE) is given as;
ROCE = Earnings after Tax (EAT) x 100%
Capital employed

Productivity

Return on Assets = Gross Profit x 100%/Total Assets
Working capital productivity = Total income/divided by net current assets

Capital productivity
We measure capital productivity as value-added per unit of capital stock. One estimate of a firm's capital stock is the value of its net property, plant, and equipment, as reported in standard financial statements. Although readily available, such figures may be subject to accounting biases. Given differences in accounting practices, the biases can vary among firms and countries, particularly when inflation is a factor. To minimise these biases, we use the "perpetual inventory method," to estimate the real capital stock. This series can be computed for a given firm, starting from the initial year of data, using the equation:
Real Capital Stock = Kt = (1-d) Kt-1 + It
Where;
Kt is the real capital stock in year t,
d is the annual rate of economic depreciation
It is the firm's gross investment in year t adjusted for inflation.

Market share

Total incomes come from financial statements. When you add the revenues/incomes per bank for the 23 banks that you are studying, then you get total incomes. A figure for total incomes was obtained by adding incomes from 23 FIs. Then to get the market share, you get the incomes per bank and then divide it with total incomes for all financial institutions and multiply by 100%.

The market share = Revenues for the period x 100%
Total revenues of the industry

Financial Statements

A company's financial statement is used to show a company's performance over a certain period of time, generally every fiscal quarter. The financial statement really consists of three different statements: balance sheets, cash flow statements and income statements.

We collected financial statements for the year 2012/2013, 2011/2012, 2010/2011, and 2010/2009. A sample of one of the FIs is given in Appendix H1, and the computed ratios are provided in Appendix H2.

Appendix: H1 A sample the balance sheet

Basically, the Balance Sheet provided very helpful information us that wished to assess the financial success of the business that it pertains to. C 21

C 21		
II.BALANCE SHEET (SHS'000)		
ASSETS	**2010 Ushs'000**	**2009 Ushs'000**
Cash and Balances due from banks	150,111	109,690
Government and other securities	218,767	152,881
Loans and advances to customers	397,338	326,299
Other Assets	21,697	9,521
Property and equipment	14,467	13,430
Total assets	**802,380**	**611,821**
LIABILITIES		
Customer deposits	475,573	346,638
Balances due to banks	10,633	
Other Liabilities	225,527	188,612
Total liabilities	711,778	535,250
Shareholder's equity	90,602	76,571
Total Shareholder's equity and liabilities	**802,380**	**611,821**
Consolidated Income Statement	**2010 Ushs'000**	**2009 Ushs'000**
Net interest income	60,275	51,938
Fee and commission and other income	13,615	11,050
Operating income	73,890	62,988
Operating expenses	-41,916	-35,452
Impairment losses on loans and Advances	2,629	4,694
Profit before income tax		
Income tax expenses	-6,289	-3,562
Profit for the year	**23,056**	**19,280**
Other comprehensive income	-249	-81
Total comprehensive income	**22,807**	**19,199**
Cost income ratio	**57%**	**56%**
Earning per ratio	**92.74%**	**77.55**
Proposed dividends per share	**37.1**	**31.02**

Appendix: H2 Computed Financial Ratios

The ratios for the 10 selected FIs used in the study are presented in bold.

	Computed Performance Ratios for Financial Institutions in Uganda for 2009 -2013										
		Net Profit Ratio					**Return on Assets**				
#	**NAME OF THE BANK**	**2009**	**2010**	**2011**	**2012**	**2013**	**2009**	**2010**	**2011**	**2012**	**2013**
1	ABC Bank	-2.20%	-49%	14.7%	22.5%		-0.30%	-5.50	2.5%	3.9%	
2	Bank of Baroda	37.0%	39%	36.2	29.4	28.5	5.30%	5.40%	5.0	4.1	3.3
3	Barclays Bank	-1.8%	-4.7		13.7	15.6				1.2	1.3
4	Cairo Bank	15%	9%		7.3	9.3	2.30%	0.90%		1.3	1.4
5	**Centenary Bank**	**19%**	**20%**	**25.5%**	**23.4%**	**21.5**	**4.80%**	**4.30%**	**5.1%**	**4.9%**	**4.0**
6	**Citi Bank**	**35%**	**45%**	**36.2%**	**42.7**	**41.0**	**6.80%**	**4.90%**	**5.0%**	**4.6**	**4.7**
7	**Crane Bank**	**46%**	**5%**	**38.1**	**38.3**	**20.7**	**7.90%**	**8.70%**	**6.9**	**6.9**	**4.9**
8	DFCU Bank	33%	30%	22.9	18.9	19.5	3.90%	3.50%	3.2	3.1	2.9
9	DTBank	7%	18%	17.7%	18.8%	18.0	0.60%	2.10%	2.3%	2.4%	2.2
10	Eco Bank	-332%	-47%				-17.70	-7.10			
11	Equity Bank	27%	32%	34.6%	28.7%	11.4	4.50%	6.10%	5.5%	5.1%	1.8
12	Opportunity Uganda	**19%**	**16%**				**1.00%**	**4.70%**			
13	Guaranty Bank	-292%	-63%				-16.50	-.90%			
14	HFinance Bank	15%	7%		9.6	7.2	2.30%	1.20%	1.2	1.6	1.2
15	KCBank	-112%	-68%				-9.70%	-6.40			
16	**Orient Bank**	**32%**	**29%**	**33.1%**	**13.5%**	-20.9	**4%**	**3.20%**	**4.6%**	**2.0%**	**-3.5**
17	**Post Bank**	**-1%**	**5%**	**6.1**	**17.9%**	**12.5%**	**-0.20%**	**0.85%**	**1.3**	**4.6%**	**2.9%**
18	**Pride**	**10%**	**11%**	**17.9%**	**23.8%**	**22.4**	**5.10%**	**4%**	**6.9%**	**9.2%**	**7.9**
19	**Stanbic Bank**	**33%**	**23%**	**28.2%**	**23.2%**	**20.9**	**6.60%**	**3.70%**	**4.5%**	**4.2%**	**3.1**
20	Stan Chartered	30%	-26%		18.9	16.3	3.70%	-4%		0.8	0.6
21	Tropical Bank	12%	26%	-2.4%	5.1%	1.2	1.00	1.90	-0.3	0.8%	0.2
22	**U BA**	**31%**	**31%**	**-7.0%**	**-31.7**	**-21.8**	**3.70**	**3.70**	**-1.0**	**-4.4**	**-2.1**
23	**UFinance Trust**	**13%**	**6%**	**7.2**	**5.7%**	**5.8**	**2.60**	**1%**	**2.8**	**2.3**	**1.9**
24	**FINCA**	**7.5**	**1.4**	**14.7**	**4.0**	**6.0**	**3.4**	**0.5**	**4.7**	**1.8**	**2.4**
25	Imperial Bank			-63.8	-12.9	-9.0			-3.8	-1.3	-0.9

APPENDIX I: Country of Origin of FIs in Uganda

Country	Frequency	Percent
Valid	2	.9
EGYPT	5	2.3
GHANA	5	2.3
INDIA	4	1.9
KENYA	31	14.6
MALI	6	2.8
NIGERIA	16	7.5
SOUTH AFRICA	10	4.7
TOGO	6	2.8
U.K	37	17.3
UAE	2	1.0
UGANDA	83	39.0
USA	6	2.8
Total	**213**	**100.0**

Source: primary data

APPENDIX J: Factor Loadings Based on Sample Size

Factor Loading	Sample Size Needed for Significance
0.30	350
0.35	250
0.40	200
0.45	150
0.50	120
0.55	100
0.60	85
0.65	70
0.70	60
0.75	50

Source: Computations made with SOLO Power Analysis,
BMDP Statistical Software, Inc., 1993 in Hair et al. (2006, p. 128).

APPENDIX K: Inter-Correlation Matrix of the Study Variables

Below we provide four appendixes for the inter correlation of our study variables; Appendix: K1 is for high performance, Appendix: K2 is KM, and Appendix: K3 is the HPO framework.

Appendix: K1 Correctional Matrix for High performance

	CA1	CA2	CA3	CA4	CA5	CA6	CA7	CA8	HP1	HP2	HP3	HP4	HP5	HP6	HP7	HP8	HP9	HP10	HP11
CA1	1	.209**	.137*	.337**	.084	.077	.393**	.101	.084	.066	.083	.119	.114	.079	.038	.054	.084	.048	.047
CA2	.209**	1	**.623****	**.451****	.355**	.303**	.266**	.286**	.153*	.244**	.167*	.200**	.188**	.283**	.334**	.301**	.347**	.355**	.256**
CA3	.137*	**.623****	1	**.551****	**.408****	**.422****	.235**	.365**	.249**	.255**	.214**	.257**	.236**	.390**	**.457****	.323**	.358**	.383**	.218**
CA4	.337**	**.451****	**.551****	1	.365**	.257**	.352**	.365**	.173*	.224**	.194**	.205**	.169*	.239**	.272**	.252**	.340**	.202**	.069
CA5	.084	.355**	**.408****	.365**	1	.563**	.215**	.191**	.323**	.372**	.259**	.316**	.295**	**.478****	**.432****	**.409****	**.457****	**.414****	.255**
CA6	.077	.303**	**.422****	.257**	**.563****	1	.188**	.207**	.206**	.200**	.083	.165*	.069	.350**	.312**	.261**	.378**	.326**	.308**
CA7	.393**	.266**	.235**	.352**	.215**	.188**	1	.355**	.228**	.259**	.131	.242**	.233**	.183**	.159*	.221**	.322**	.213**	.250**
CA8	.101	.286**	.365**	.365**	.191**	.207**	.355**	1	.127	.198**	.128	.146*	.110	.253**	.222**	.180**	.307**	.247**	.226**
HP1	.084	.153*	.249**	.173*	.323**	.206**	.228**	.127	1	**.715****	**.629****	**.592****	**.570****	**.415****	**.408****	.377**	**.450****	.396**	.339**
HP2	.066	.244**	.255**	.224**	.372**	.200**	.259**	.198**	.715**	1	**.707****	**.625****	**.587****	**.456****	**.401****	.364**	**.510****	**.404****	.346**
HP3	.083	.167*	.214**	.194**	.259**	.083	.131	.128	**.629****	**.707****	1	**.755****	**.796****	.379**	**.424****	.387**	**.420****	.339**	.155*
HP4	.119	.200**	.257**	.205**	.316**	.165*	.242**	.146*	**.592****	**.625****	**.755****	1	.838**	**.454****	**.480****	**.449****	**.474****	.397**	.210**
HP5	.114	.188**	.236**	.169*	.295**	.069	.233**	.110	**.570****	**.587****	**.796****	**.838****	1	**.488****	**.467****	**.439****	**.424****	.318**	.160*
HP6	.079	.283**	.390**	.239**	**.478****	.350**	.183**	.253**	**.415****	**.456****	.379**	**.454****	**.488****	1	**.645****	**.453****	**.528****	**.493****	.301**
HP7	.038	.334**	**.457****	.272**	**.432****	.312**	.159*	.222**	**.408****	**.401****	**.424****	**.480****	**.467****	**.645****	1	**.511****	**.527****	**.515****	.291**
HP8	.054	.301**	.323**	.252**	**.409****	.261**	.221**	.180**	.377**	.364**	.387**	.449**	**.439****	**.453****	**.511****	1	**.507****	**.486****	.333**
HP9	.084	.347**	.358**	.340**	**.457****	.378**	.322**	.307**	**.450****	**.510****	**.420****	**.474****	**.424****	**.528****	**.527****	**.507****	1	**.676****	**.408****
HP10	.048	.355**	.383**	.202**	**.414****	.326**	.213**	.247**	.396**	**.404****	.339**	.397**	.318**	**.493****	**.515****	**.486****	**.676****	1	**.496****
HP11	.047	.256**	.218**	.069	.255**	.308**	.250**	.226**	.339**	.346**	.155*	.210**	.160*	.301**	.291**	.333**	**.408****	**.496****	1

Appendix: K2 Correlation Matrix and Component Correlation Matrix KM (28 Items) (N=213)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
KA1	1																											
KA2	.418**	1																										
KA3	.326**	.392**	1																									
KA4	.372**	**.406****	**.520****	1																								
KA5	.234**	0.1	.251**	**.440****	1																							
KA6	.339**	.203**	.395**	**.458****	**.464****	1																						
KA7	.326**	.198**	.195**	.231**	.201**	.372**	1																					
KA8	.284**	.237**	.252**	.270**	.191**	.340**	.278**	1																				
KA9	**.469****	.208**	.247**	.333**	.216**	.357**	**.431****	.357**	1																			
KA10	.327**	.216**	.165	.243**	.218**	.349**	.254**	.336**	.325**	1																		
KD1	.387**	**.409****	.295**	.295**	.193**	.217**	.182**	.295**	.267**	.239**	1																	
KD2	.380**	.363**	.206**	.261**	.212**	.332**	.184**	.299**	.225**	.398**	.395**	1																
KD3	.229**	.307**	.208**	.327**	.290**	.325**	.202**	.279**	.201**	.361**	.288**	**.463****	1															
KD4	.204**	.323**	.194**	.243**	.232**	.270**	.145*	**.431****	.278**	.227**	.246**	.254**	**.483****	1														
KD5	.179*	.259**	.154*	.175*	0.057	.159*	0.12	.161*	.206**	.169*	.242**	0.11	.193**	.261**	1													
KD6	.341**	.339**	.258**	.355**	.242**	.339**	.361**	.322**	.378**	.361**	.330**	.321**	**.403****	.315**	.330**	1												
KD7	**.405****	.317**	.321**	.266**	.199**	.331**	.294**	.249**	.383**	.314**	**.429****	.345**	.311**	.249**	.313**	**.604****	1											
KD8	.252**	0.11	0.05	0.05	0.098	.158*	0.13	.164*	.183**	.248**	0.12	.264**	.209**	.135*	0.07	.244**	.366**	1										
KD9	.307**	0.07	0.03	0.13	.266**	.283**	.227**	**.410****	.361**	.280**	.263**	.248**	.273**	.333**	.221**	.217**	.354**	.245**	1									
KR1	**.415****	.266**	.358**	.333**	.184**	.348**	**.423****	.305**	.396**	.361**	**.453****	.251**	.207**	.161*	.276**	.329**	.396**	0.11	.326**	1								
KR2	.315**	0.11	.275**	.232**	.182**	.325**	.228**	.319**	.307**	.278**	.231**	.284**	.199**	.142*	0.12	.292**	.368**	0.12	.293**	**.543****	1	.						
KR3	.348**	.330**	.234**	.324**	.261**	.396**	.296**	.361**	.399**	.280**	.233**	.352**	.389**	.343**	.153*	.388**	.292**	.212**	.347**	.362**	**.549****	1						
KR4	.376**	.235**	.225**	.397**	.296**	.381**	.390**	.292**	**.401****	.317**	.216**	.239**	.326**	.167*	0.08	.356**	.306**	.192**	.250**	.398**	.390**	**.573****	1					
KR5	**.472****	.232**	.326**	**.431****	.353**	**.507****	**.528****	**.414****	**.490****	.283**	.300**	.202**	.270**	.228**	.158*	.367**	**.414****	.285**	.345**	.487**	.367**	**.491****	**.705****	1				
KR6	.339**	.220**	.200**	.253**	.284**	.369**	.436**	.336**	.347**	.289**	.322**	.286**	.312**	.142*	.263**	.482**	.507**	.225**	.291**	**.493****	**.420****	.370**	**.417****	**.509****	1			
KR7	**.448****	.199**	.256**	.260**	.298**	.311**	.361**	.304**	.397**	.377**	.224**	.312**	.307**	.165*	.136*	.361**	.323**	.274**	.293**	**.464****	**.404****	**.534****	**.516****	**.585****	**.439****	1		
KR8	**.445****	.305**	.306**	**.404****	.388**	**.442****	.381**	.327**	.359**	.374**	.297**	.267**	.327**	.230**	.142*	**.404****	**.448****	.250**	.325**	**.501****	**.468****	**.504****	**.498****	**.574****	.566**	**.582****	1	
KR9	**.517****	.371**	.274**	.357**	.206**	**.414****	.359**	.324**	**.476****	.351**	.316**	.366**	.313**	.226**	.214**	**.502****	**.543****	.282**	.317**	**.447****	**.407****	**.433****	**.451****	**.513****	**.533****	**.472****	**.599****	1

Appendix K3: The HPO framework

The managem	0.192	0.32	0.343	0.36	**0.467**	0.317
Organisational	0.193	0.318	0.221	0.245	0.299	0.259
Our organisatic	0.114	0.393	0.247	0.275	**0.421**	0.298
Our organisatic	0.189	0.238	0.238	0.291	0.373	0.251
Our organisatic	0.228	0.394	0.332	0.346	**0.541**	0.308
Our organisatic	0.164	0.44	0.327	0.208	**0.422**	0.292
The managem	0.194	0.347	0.304	0.314	0.258	0.165
New managen	0.211	0.383	0.276	0.218	0.193	0.198
Our organisatic	0.15	0.366	**0.432**	0.373	**0.411**	0.34

APPENDIX L: Content Validity Index

The following formula was used to calculated the components under study:

CVI = Number of items declared valid/relevant
Total number of items

Table of Content Validity Index (CVI) for each variable

Variable (Construct)	Variable (Construct)	CVI	Variable CVI
Knowledge management	Knowledge acquisition	0.793	0.841
	Knowledge dissemination	0.816	
	Responsiveness to knowledge	0.917	
High performance organisation framework	Management quality	0.860	0.790
	Openness and action orientation	0.767	
	Continuous improvement and renewal	0.735	
	Work force quality	0.794	
	Long term orientation	0.668	
High performance	Financial and non-financial		0.816
Competitive advantage	Resources and capabilities		0.806

Source: *Primary data*

Table above indicates that, the entire content index ratios are above the pre-set ratio of 70% as suggested by Ehlert (2004). The closer the CVI to one (1), the more valid is the instrument.

APPENDIX M: The Cronbach's Alpha

Reliability table before Inter-Correlation and Deletion of items.

Construct	Cronbach's Alpha	
HPO framework	.942	acceptable
MQ	.909	acceptable
WQ	.760	acceptable
LTO	.707	acceptable
CI	.844	acceptable
OAO	.684	questionable
Knowledge Management	.929	acceptable
KA	.807	acceptable
KD	.772	acceptable
KR	.897	acceptable
High performance	.764	acceptable
Financial	.760	acceptable
Non Financial	.730	acceptable
Competitive advantage	.774	acceptable

Source: *primary*

APPENDIX N: Letter of Introduction

MSM
MAASTRICHT SCHOOL OF MANAGEMENT

Maastricht, Wednesday, July 21, 2010

TO WHOM IT MAY CONCERN

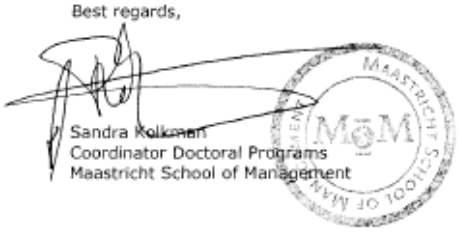
Dear Sir/Madam,

Herewith I confirm that Ms. Janet Kyogabiirwe Bagorogoza (born on August 28, 1962 in Mbarara - Uganda) is a student at the Maastricht School of Management (MsM) from March 1st 2008 to March 1st 2012.

Ms. Kyogabiirwe is a participant to the doctoral program. She currently needs to collect data for her PhD study. Ms Bagorogoza is collecting data from financial institutions in Uganda. Her Thesis is focused on "the Role of Knowledge Management in High performing organisations". She is working under the supervision of Dr. A. de Waal (MSM) and Prof. dr. J. van den Herik (Tilburg University). Please would you be willing to assist her in this respect.

If you have any additional questions, don't hesitate to contact me.

Best regards,



Sandra Kolkman
Coordinator Doctoral Programs
Maastricht School of Management

visiting address: Endepolsdomein 150, 6229 EP Maastricht
mail address: P.O. Box 1203, NL-6201 BE Maastricht
telephone / fax: +31 43 38 70 808, +31 43 38 70 800
internet / e-mail: www.msm.nl, information@msm.nl

APPENDIX O: Hierarchical regression results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.575[a]	.331	.273	.73617	.331	5.684	2	23	.010	
2	.766[b]	.588	.531	.59094	.257	13.694	1	22	.001	
3	.775[c]	.601	.525	.59515	.013	.689	1	21	.416	1.921

a. Predictors: (Constant), institutional phase, Number of employees.

b. Predictors: (Constant), Institutional phase, Number of employees, KM.

c. Predictors: (Constant), Institutional phase, Number of employees, KM, HPOF.

d. Dependent Variable: High performance.

ANOVA[s]

Model		Sum of Squares	do	Mean Square	F	Sig.
1	Regression	6.160	2	3.080	5.684	.010[a]
	Residual	12.465	23	.542		
	Total	18.625	25			
2	Regression	10.943	3	3.648	10.445	.000[b]
	Residual	7.683	22	.349		
	Total	18.625	25			
3	Regression	11.187	4	2.797	7.896	.000[c]
	Residual	7.438	21	.354		
	Total	18.625	25			

a. Predictors: (Constant), Institutional phase, Number of employees _

b. Predictors: (Constant), Institutional phase, Number of employees, KM_

c. Predictors: (Constant), Institutional phase, Number of employees, KM, HPOF

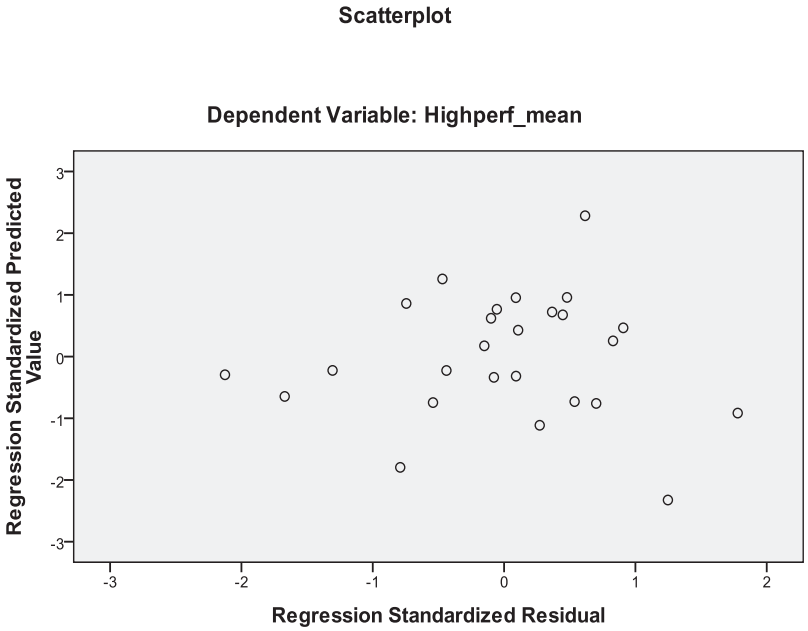
d. Dependent Variable: High performance

APPENDIX P: Scatter plots, Normal probability plots, Histogram,

Skewness and Kurtosis Statistics
Below we present the parametric tests performed before testing the claims.

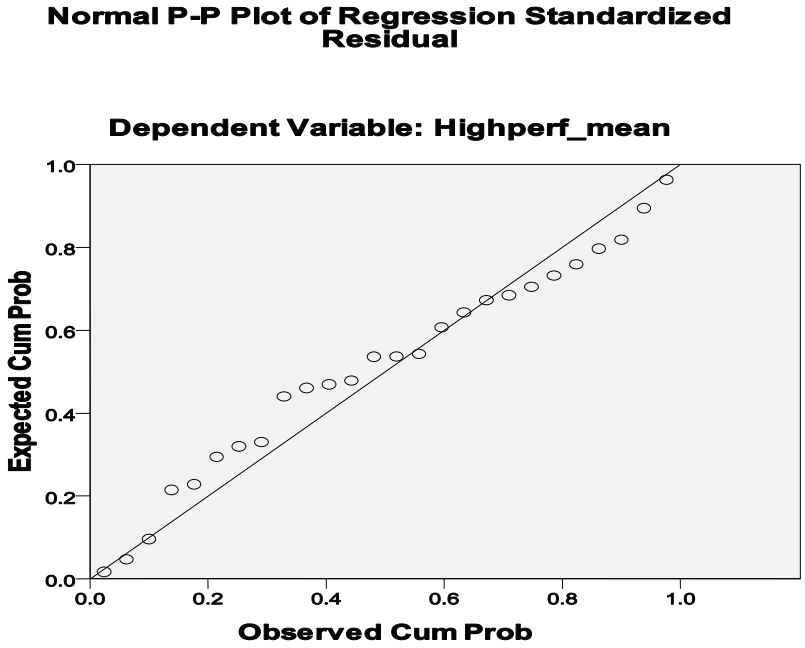
Appendix: P (i) Scatter plot

For the bivariate outlier's analysis, we produced and examined bivariate scatter plots.



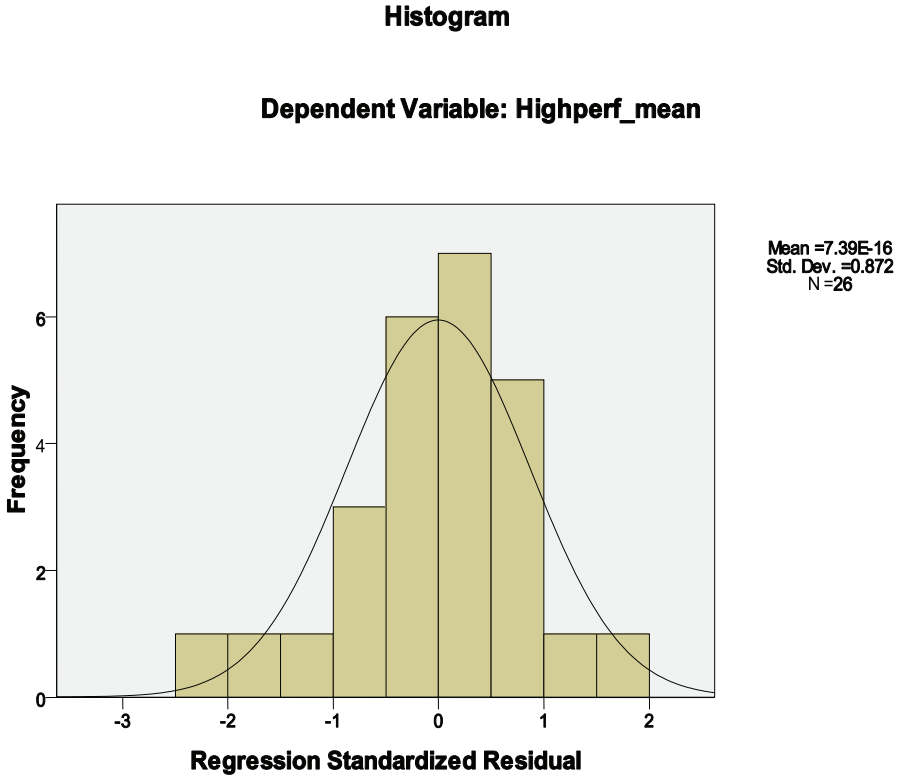
Appendix: P (ii) Normal P-P Plot of Regression Standardised Residual

To establish the linearity and the distribution of the data we checked the P-P plots provided below.



Appendix: P (iii) Histogram

The multivariate normality test the histogram was examined in addition to the P-P plots.



Appendix: P (iv) Skewness and Kurtosis Statistics

To establish the level of normal distribution of the data the skewness and kurtosis statistics test was carried**.**

Variable					Skewness		Kurtosis	
	Min.	Max.	Mean	Std.dev	Stat.	Std. error	Stat.	Std. error
KM	6.21	9.20	7.89	.678	-.753	.456	1.279	.887
HPOF	6.56	8.92	7.85	.559	-.439	.456	-.209	.887
High-performance	3.98	9.17	6.55	1.169	-.273	.456	.205	.887

Note: n = 26 for all variables
The results of skewness and kurtosis are all within acceptable range (Klein, 2005; Field, 2009).

APPENDIX Q: The Table for the bootstrap results

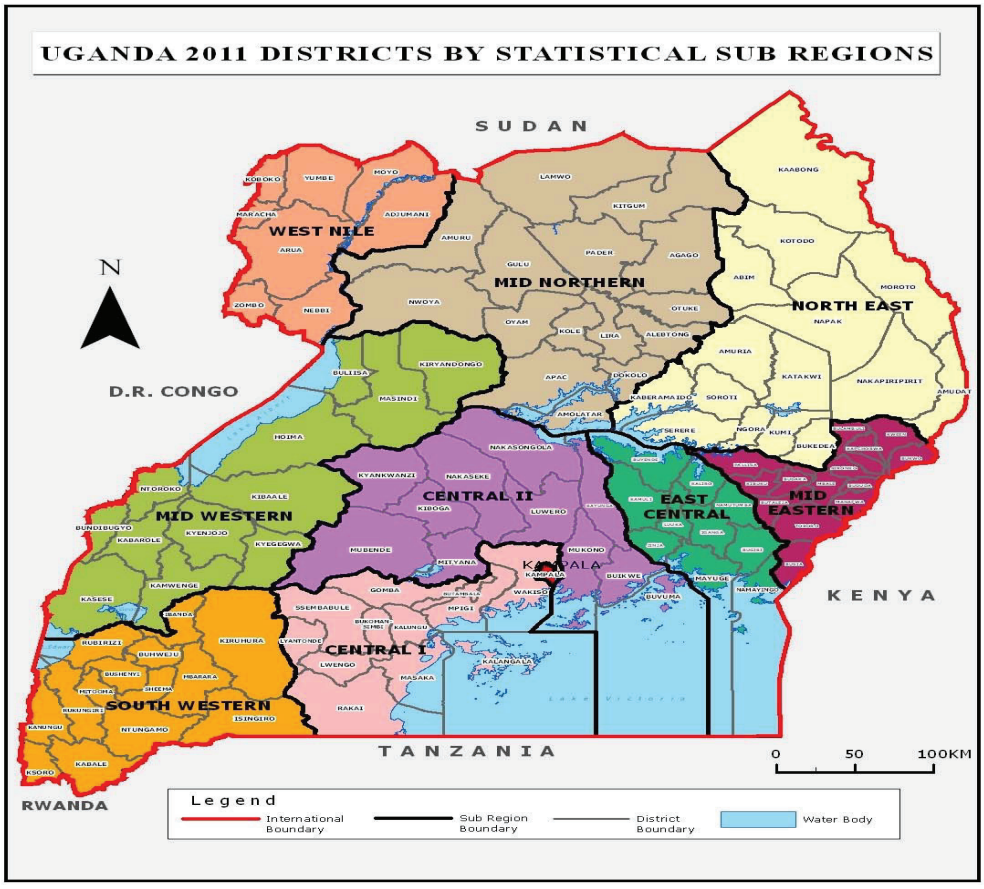
The PLS results table for dimension of the variables

Outer model (Dimension 1):
Weights (Dimension 1):

Latent variable	Manifest variables	Outer weight	Outer weight (normalized)	Outer weight (Bootstrap)	Standard error	Critical ratio (CR)	Lower bound (95%)	Upper bound (95%)
HPOF	MQ	0.530	0.313	0.557	0.096	5.491	0.403	0.781
	WQ	0.399	0.236	0.440	0.145	2.746	0.237	1.025
	LTO	0.316	0.186	0.296	0.092	3.447	0.073	0.477
	CIR	0.448	0.265	0.447	0.078	5.765	0.138	0.645
HP	Fin	0.419	0.447	0.436	0.083	5.056	0.249	0.674
	Non	0.310	0.330	0.315	0.066	4.689	0.200	0.469
	CAdv	0.210	0.223	0.210	0.122	1.721	-0.064	0.431
KM	KA	0.296	0.185	0.303	0.169	1.757	-0.084	0.629
	KD	0.624	0.389	0.638	0.140	4.456	0.367	0.961
	KR	0.683	0.426	0.719	0.180	3.793	0.437	1.222

APPENDIX R: The Map of Uganda showing regions

The map of Uganda showing the scope of the study i.e., districts where the study was carried out.



APPENDIX S: Graphic presentation of the HPO Framework

Summary

We start our research by the observation that many scholars and practitioners today have an increased interest in identifying the underlying factors of a sustained high performance. In this thesis, we investigate the high performance organisation (HPO) framework. It is a conceptual, scientifically validated structure. Moreover, we envisage the HPO framework as a powerful strategy that can enable institutions to overcome the extreme competition which they are facing nowadays.

Current research on high performance indicates that (1) many large companies have already adopted the HPO framework approach in their operations, (2) there is a shortage of empirical research on the HPO framework as used by financial institutions (FIs), particularly FIs in developing countries, and (3) most research on knowledge management (KM) and high performance has been undertaken in a Western context, meaning that little is known about the KM practices of FIs operating in a non-Western context.

Our study examines the extent to which KM can influence FIs in Uganda to become HPOs. We operationalised our Uganda Financial Institutions(UFI) model in the finance sector in Uganda. It is now widely accepted that HPOs play a crucial role in the economic growth. Our research aim is (1) to investigate the current situation, and (2) to attempt and find methods for improvement. Moreover, we aim at predicting future developments and offering concrete recommendations. To investigate the possible paths leading to these aims the following Problem Statement (PS) has been formulated in Chapter 1.

Problem Statement:
To what extent can KM help financial institutions in Uganda to become high performance organisations?

The main concepts in our study are the HPO framework, knowledge management, high performance, and financial institutions. We choose to investigate the PS in the finance service sector in Uganda in two branches: (1) Commercial banks and (2) Micro finance Deposit -taking Institutions (MDIs). The finance institutions are a knowledge intensive sector that significantly contributes to employment, to the funding of business, and to the economic growth of Uganda.

To find answers to the problem statement we formulated the following seven research questions (RQs). They guided our research and read as follows.
RQ1: What are the theories applicable to understanding KM practices and HPO in FIs?
RQ2: What is the existing level of performance of FIs in Uganda?
RQ3: What are the existing KM practices in FIs in Uganda?

RQ4: What is the relationship between the HPO framework and high performance in FIs in Uganda?
RQ5: What is the relationship between the HPO framework and KM in FIs in Uganda?
RQ6: What is the relationship between KM and high performance in FIs in Uganda?
RQ7: Does KM influence the relationship between the HPO framework and high performance in FIs in Uganda, and if so in what manner?

The chapters where the RQs are addressed are as follows.
RQ1 is answered by literature research (Chapter 3).
RQ2 and RQ3 are answered by Survey 1 and Survey 2 (Chapter 5).
RQ4 and RQ5 are answered by Survey 3 (Chapter 6).
RQ6 and RQ7are answered by the results extracted from Survey 3 (Chapter 7).

Here, we remark that the surveys are described in general in section 1.7, and that we discuss the relevant methodological choices and the options taken, in detail at the beginning of the description of each of the surveys.

Eight research objectives are formulated, they read as follows.

1. To establish the extent to which the existing theories are applicable to understand KM and high performance in FIs in Uganda.
2. To establish the existing levels of performance in FIs in Uganda.
3. To establish the existing KM practices in FIs in Uganda.
4. To establish the relationship between the HPO framework and high performance in FIs in Uganda.
5. To establish the relationship between the HPO framework and KM in FIs in Uganda.
6. To establish the relationship between KM and high performance in FIs in Uganda.
7. To determine the influence of KM on the HPO framework and high performance.
8. To design the Uganda Financial Institutions (UFI) model for HPO, i.e., a model that can be used to support the FIs in Uganda to reach the HPO level.

In Chapter two, we provide definitions and give a critical review of the relevant literature of the variables involved in the study. We scrutinise the existing literature pertaining to the prevailing HPO framework, KM practices, and high performance. This enables us to classify and analyse the relationship between KM and high performance.

In Chapter three, we give an overview of the existing research method (RM) theories. Subsequently we discuss a theoretical model and explain the proposed UFI model for HPO in FIs in Uganda. The model designed for our study is based on the concepts discussed in the literature and reviewed in Chapter two.

The answer to RQ1 is as follows.

No single theory can be applied by the managers to improve the performances of FIs. However, an appropriate combined use of the theories on resource based view (RBV) and the dynamic capabilities (DC) may help the FI manager to improve on the institution's performance towards HPO. The knowledge based theory (KBT) may be useful in explaining sustained high performance. Therefore, to understand the KM practices and high performance in Uganda, we need a combination of the three theories.

In Chapter four, we discuss the research methodology and explain in full detail the research strategy, the design, and the operationalisation of the variables. Further, sampling methods, data collection, processing and analysis as is required for the thesis are discussed. This holds also for ethical questions. The results of a pilot study are presented. The chapter concludes by a discussion of the limitations and delimitations of the research. To answer the research questions, the study uses a mixed research design. Twenty six FIs operating in Uganda were studied. Data was collected using structured interviews, questionnaires, and reviews of archival data. The key informants were the managers and employees of the FIs under study.

In Chapter five, we discuss the state of FIs in Uganda. Here, FIs are conceptually defined and a discussion of their relevance and importance to the Ugandan people is provided. We conduct two Surveys, Survey 1 and Survey 2. We do also present the results from a preliminary study (a pilot study) performed in the early stages of the research. The chapter concludes by a discussion of challenges faced by the FIs which operate in the Ugandan area. We answer RQ2 and RQ3.

A brief answer to RQ2 is as follows.
The level of performance of the FIs in Uganda is *average* in relation to (1) profitability, (2) productivity, and (3) market share. Our findings also reveal that the managers in FIs are not fully utilising the HPO framework even though they are familiar with the HPO factors.

A brief answer to RQ3 is as follows.
The existing KM practices include: (1) the main processes of KM knowledge acquisition, (2) knowledge dissemination, and (3) responsiveness to knowledge. Their application is improving. The need for application is recognised by the managers.

In Chapter six, we present the findings from the interviews of Survey 3. Moreover, the chapter presents the findings from a case study of selected FIs in Uganda. The presentation of the results is the main contribution of the thesis. The answer to RQ4 and RQ5 is given below.

A very brief answer to RQ4 is as follows.
-There is a relationship between the HPO framework and high performance.
-There is a relationship between the HPO factors and the composite of high performance.

A very brief answer to RQ5 is as follows.
-There is a strong relationship between the HPO framework and knowledge management.
-There is a relationship between the HPO factors and the composite of knowledge management.

In Chapter seven, we present our findings of the mediating effect and the results of the UFI model for HPO. All the variables of the study are tested against the mediation nature of KM on the relationship between the HPO framework and high performance. Brief answers to RQ6 and RQ7aregiven below.

A brief answer to RQ6 is as follows.
There is a strong relationship between KM and high performance. In the findings from our sample, we see during the interview process positive reactions towards KM as requirement for performance improvement. To a large extent, KM strategies were suggested by the respondents as a possibility that may help the FIs improve on their performance. There, a general KM-related background transpires from the findings of the study. The environment is highly competitive, ready to manage knowledge, and implement the UFI model for HPO in FIs in Uganda. The FIs are competing on two major fronts: the customer service and the skill of service.

A brief answer to RQ7 is as follows.
Knowledge management mediates the relationship between the HPO framework and high performance. The findings reveal that the applicability of the HPO framework can lead to improved performance and this performance may be sustained if the managers effectively manage knowledge.

In Chapter eight, we present a discussion on the findings of Survey 3. The findings from the interviews and the questionnaire are compared with the existing literature. Moreover, the study investigated the KM practices of the FIs in the service sector in Uganda, and tested the mediating effect of KM in the relationship between the HPO framework and high performance. Based on these new findings we propose an *advanced* UFI model for HPO. This model should be even more suitable for use by FIs in Uganda to improve their competitiveness and high performance.

In Chapter nine, we provide the highlights of the study. The theoretical and the practical implications from the research are listed, the limitations of the research are given, and

possible areas are suggested for future research. The following five major conclusions are made.

1. FIs in Uganda can use different paths to achieve HPO. Moreover our model can be extended to the financial operations of other developing countries with similar challenges.
2. Our study has widened the academic debate on the suitability of using Western KM models to improve performance in the developing world.
3. KM is revisited in this study and now enables FIs to create an HPO and HPO teams that remain current, competitive, and vital. They should place emphasis on hiring, developing, and retaining the right people.
4. KM will depend upon introducing a new business model such as the HPO framework.
5. The relations between the HPO framework, KM, and high performance are strongly needed for FIs in Uganda.

Finally, we present the following five main recommendations.

1. The scope of the study should be broadened to cover all financial services, so that the HPO factors can be validated for the full range of industries, from process industry to service industry. The FIs can start on a small-scale use of an incremental approach to roll out an HPO framework.
2. Managers should stimulate an organisational climate in which acquiring, disseminating, and responding to knowledge is encouraged. Future research should consider the KM model that will manage and integrate indigenous and exogenous knowledge, necessary for sustainable HPOs in the FIs and other sectors.
3. Managersshould create the ability in their staff to generate clear, forceful arguments for opposing viewpoints, and carefully formulate their own statements. Open discussion and disagreement must be encouraged so that all sides of an issue will be fully explored.
4. The policy makers should establish and entrench a “knowledge culture” within the FIs, and enhance the operational effectiveness of the central bank’s interventions. The former requires that the FIs take steps to transform into institutions where knowledge can be effectively acquired and used for purposes of improving quality at the entry and achieving high performance in the sector.
5. The FIs are recommended to gain competitive advantage by building a high performance culture, create a culture of continuous improvement and renewal, use of performance management to add organisational value, and prove it to save time and money on performance management that is embedded in a culture of high performance.

Samenvatting

Ons onderzoek begint met de waarneming dat veel onder zoekers en praktijkmensen tegenwoordig zeer geïnteresseerd zijn in het identificeren van onderliggende factoren van blijvende *high performance*. In dit kader onderzoeken wij wat een conceptuele, wetenschappelijk gevalideerde structuur van een high performance organisation (HPO) precies betekent. Wij zieneen HPO-*framework* als een krachtige strategie die instellingen in staat stelt om de extreme concurrentie waar zij tegenwoordig mee geconfronteerd worden, te overwinnen.

Recent onderzoek naar *high performance* toont aan dat (1) veel grote bedrijven de benadering van het HPO-*framework* reeds hebben overgenomen in hun ondernemingen, (2) er een tekort is aan empirisch onderzoek naar het gebruik van het HPO-*framework* door financiële instellingen (FIs), voornamelijk in ontwikkelingslanden, en (3) het meeste onderzoek naar *knowledge management* (KM) en *high performance* is uitgevoerd in de context van het Westen, hetgeen betekent dat weinig bekend is over de KM-praktijken door FIs die werkzaam zijn in een niet-westerse context.

Onze studie onderzoekt de mate waarin KM de FIs in Uganda kan beïnvloeden om HPOs te worden. Daartoe operationaliseerden wij onze Uganda Financial Institutions (UFI) model in de financiële sector in Uganda. Het is nu wijd en zijd geaccepteerd dat HPOs een cruciale rol spelen in de economische groei. Ons onderzoeksdoel is om (1) de huidige situatie te onderzoeken en (2) te proberen methoden voor verbetering te vinden. Bovendien is ons doel om toekomstige ontwikkelingen te voorspellen en concrete aanbevelingen te formuleren. Om de mogelijke wegen die naar dit doel leiden te onderzoeken, is de volgende probleemstelling (PS) geformuleerd in hoofdstuk 1.

Probleemstelling:
In welke mate kan Kennis Management (KM) financiële instituties in Uganda helpen om high performance organisations *te worden?*

De hoofdbegrippen in onze studie zijn: het HPO-*framework*, *knowledge management*, *high performance* en financiële instellingen.Wij kiezen ervoor om de PS te onderzoeken in de financiële service sector in Uganda, in twee soorten FIs: (1) Commerciële banken en (2) de *Micro finance Deposit-taking Institutions* (MDIs). De financiële instellingen zijn een kennis-intensieve sector die significant bijdragen aan werk, financiering van het bedrijfsleven en economische groei in Uganda.

Om antwoorden te vinden op de probleemstelling hebben we de volgende zeven onderzoeksvragen (OVs) geformuleerd. Zij begeleidden ons onderzoek en luiden als volgt.

OV1: Welke theorieën kunnen worden toegepast om Kennis Management in de praktijk en HPO in de FIs te begrijpen?
OV2: Wat is het bestaande niveau van *performance* van FIs in Uganda?
OV3: Wat zijn de bestaande KM-praktijken in FIs in Uganda?
OV4: Wat is de relatie tussen het HPO-*framework* en *high performance* in FIs in Uganda?
OV5: Wat is de relatie tussen het HPO-*framework* en KM in FIs in Uganda?
OV6: Wat is de relatie tussen KM en *high performance* in FIs in Uganda?
OV7: Heeft KM invloed op de relatie tussen het HPO-*framework* en *high performance* in FIs in Uganda en zo ja, op welke manier?

De OVs worden in de volgende hoofd stukken behandeld.
OV1 wordt beantwoord door literatuur onderzoek (Hoofdstuk 3).
OV2 en OV3 worden beantwoord door Onderzoeks overzicht 1 en Onderzoeks overzicht 2 (Hoofdstuk 5).
OV4 en OV5 worden beantwoord door Onderzoeks overzicht 3 (Hoofdstuk 6).
OV6 en OV7 worden beantwoord door de resultaten onttrokken aan Onderzoeks overzicht 3 (Hoofdstuk 7).

Hier merken wij op dat de onderzoeksoverzichten in algemene termen zijn beschreven in sectie 1.7 en dat we de relevante methodologische keuzes en gemaakte opties in detail bespreken aan het begin van de beschrijving van elk van de onderzoeksoverzichten.

Er zijn acht onderzoeksdoelstellingen geformuleerd. Zij luiden als volgt.

1. Het vaststellen van de mate waarin de bestaande theorieën toepasbaar zijn om KM en *high performance* in FIs in Uganda te begrijpen.
2. Het vaststellen van de bestaande niveaus van *performance* in FIs in Uganda.
3. Het vaststellen van de bestaande KM-praktijken in FIs in Uganda.
4. Het vaststellen van de relatie tussen het HPO-*framework* en *high performance* in FIs in Uganda.
5. Het vaststellen van de relatie tussen het HPO-*framework*en KM in FIs in Uganda.
6. Het vaststellen van de relatie tussen KM en *high performance* in FIs in Uganda.
7. Het bepalen van de invloed van KM op het HPO-*framework*en *high performance*.
8. Het ontwerpen van het Uganda Financial Institutions (UFI) model voor HPO, dat wil zeggen, het model dat kan worden gebruikt ter ondersteuning van de FIs in Uganda om het HPO-niveau te bereiken.

In hoofdstuk twee geven wij definities en een kritische recensie van de relevante literatuur betreffende de variabelen die betrokken zijn bij de studie. Wij onderzoeken de bestaande literatuur diepgaand met betrekking tot het HPO-*framework*, de KM-praktijken en *high*

performance. Dit stelt ons in staat om de relatie tussen KM en *high performance* te classificeren en te analyseren.

In hoofdstuk drie geven wij een overzicht van de bestaande theorieën betreffende de mogelijke onderzoeksmethoden. Wij beschouwen een theoretisch model en verklaren het voorgestelde UFI-model voor HPO in FIs in Uganda. Het model dat is ontworpen voor onze studie is gebaseerd op concepten die in de literatuur zijn besproken en die in Hoofdstuk twee zijn onderzocht.

Het antwoord op OV1 is als volgt.
Geen enkele theorie kan als enige worden toegepast door de managers met het oogmerk om de prestatie van de FIs te verbeteren. Echter, een geschikt gecombineerd gebruik van de theorieën aangaande de*resource based view* (RBV) en de *dynamische capabilities* (DC) kunnen de FI manager helpen om de *performances* van de instelling te verbeteren in de richting van HPO. De *knowledgebasedtheory* (KBT) kan dienstbaarzijn bij het uitleggen van *high performance*. Om de KM-praktijken en *high performance* in Uganda goed te begrijpen, hebben we een combinatie nodig van de drie theorieën.

In Hoofdstuk vier bespreken wij de onderzoeksmethodologie en leggen in detail de onderzoeksstrategie, het ontwerp en de operationalisering van variabelen uit. Verder worden methoden voor het nemen van steekproeven, het verzamelen van data, het verwerken en analyserenvan data besproken. Deze bespreking bevat ook ethische vraagstukken. Deresultaten van een pilotstudie worden eveneens gepresenteerd. Het hoofdstuk bevat een bespreking van de beperkingen en afbakeningen van het onderzoek. Om de onderzoeksvragen te beantwoorden, gebruikt de studie een gemengde onderzoeksopzet. Zesentwintig FIs die in Uganda werkzaam zijn, worden bestudeerd. De data is verzameld met gebruikmaking van gestructureerde interviews, vragenlijsten en geïnspecteerde archiefgegevens. De sleutelinformanten waren de managers en werknemers van de onderzochte FIs.

In Hoofdstuk vijf bespreken we de status van de FIs in Uganda. Hier worden de FIs inhoudelijk gedefinieerd en wordt hun relevantie en het belang voor de Ugandezen besproken. Er worden twee onderzoeksoverzichten gemaakt, te weten Onderzoeksoverzicht 1 en Onderzoeksoverzicht 2. Wij nemen ook de resultaten op van een inleidende studie, die uitgevoerd is in een vroeg stadium van het onderzoek. Het hoofdstuk wordt afgesloten door een bespreking van de uitdagingen waar de FIs die in Uganda opereren mee worden geconfronteerd. Wij beantwoorden OV2 en OV3.

Een kort antwoord op OV2 is als volgt.
Het niveau van *performance* van de FIs in Uganda is *gemiddeld* in relatie tot (1) winstgevendheid, (2) productiviteit en (3) marktaandeel. Onze bevindingen tonen ook aan

dat de managers in FIs niet ten volle het HPO-*framework* gebruiken, ondanks het feit dat ze wel bekend zijn met de HPO-factoren.

Een kort antwoord op OV3 is als volgt.
De bestaande KM praktijk bevat: (1) de hoofdprocessen van KM kennisverwerving, (2) kennisverspreiding en (3) responsiviteit tot kennis. Hun toepassing verbetert voortdurend. Bovendien wordt de noodzaak voor toepassing erkend door de managers.

In Hoofdstuk zes tonen wij de bevindingen van het onderzoek van Onderzoeksoverzicht 3. Bovendien beschrijft het hoofdstukde bevindingen van een casestudie van de geselecteerde FIs in Uganda. De presentatie van de resultaten is de hoofdbijdrage van de thesis. Het antwoord op OV4 en OV5 wordt hieronder in het kort gegeven.

Een heel kort antwoord op OV4 is als volgt.
- Er is een relatie tussen het HPO-*framework*en *high performance*.
- Er is een relatie tussen de HPO-factoren en de samenstellende delen van *high performance*.

Een heel kort antwoord op OV5 is als volgt.
- Er is een sterke relatie tussen het HPO-*framework* en *knowledge management*.
- Er is een relatie tussen de HPO-factoren en de samenstellende delen van*knowledge management.*

In Hoofdstuk 7 tonen wij de bevindingen van het effect van bemiddelen en de resultaten van het UFI model voor HPO. Alle variabelen van de studie zijn getest aangaandede aard van bemiddeling van KM betreffende de relatie tussen het HPO-*framework* en *high performance*. Het antwoord op OV6 en OV7 wordt hieronder gegeven.

Het antwoord op OV6 is als volgt.
Er is een sterke relatie tussen KM en *high performance*. In de bevindingen van onze steekproef zien wij tijdens het interviewproces positieve reactiesten aanzien van KM als vereiste voor een *performance*-verbetering. In veel gevallen werden KM-strategieën gesuggereerd door respondenten als een mogelijkheid om de *performance* van deFIs te verbeteren. Kort gezegd, we zien een algemene KM-gerelateerde achtergrond bij deze bevindingen. Het milieu is hoogst competitief, klaar om kennis te beheren en het UFI model voor HPO in FIs te implementeren in Uganda. DeFIs concurreren met elkaar op twee belangrijke fronten: de klantenservice en bekwaamheid om service te verlenen.

Het antwoord op OV7 is als volgt.

Knowledge management bemiddelt duidelijk in de relatie tussen het HPO-*framework* en *high performance*. De bevindingen tonen aan dat de toepasbaarheid van het HPO-*framework*zou kunnen leiden tot verbetering van de *performance* en dat de*performance* kan worden behouden als de managers effectief zouden zijn in hun kennismanagen.

In Hoofdstuk acht bespreken wij de resultaten van Onderzoeksoverzicht 3. De bevindingen van de interviews en de vragenlijst worden vergeleken met de bestaande literatuur. De studie onderzocht tevens de KM-praktijken van de FIs in de service sector van Uganda en testte het effect van bemiddeling van KM in relatie tot het HPO-*framework*en *high performance*. Gebaseerd op deze nieuwe bevindingen stellen we een *geavanceerd* UFI model voor HPO voor. Dit model zou nog geschikter moeten zijn voor het gebruik door FIs in Uganda om hun concurrentiepositieen *high performance* te verbeteren.

In Hoofdstuk negen geven we de hoogtepunten van de studie. De theoretische en praktische implicaties van het onderzoek worden vermeld, de beperkingen van het onderzoek wordenbeschreven en mogelijke gebieden worden voorgesteld voor toekomstig onderzoek. De volgende vijf belangrijke conclusies worden gemaakt.

1. FIs in Uganda kunnen verschillende wegen kiezen om HPO te bereiken. Verder kan ons model worden uitgebreid tot de financiële instituties van andere ontwikkelingslanden met soortgelijke uitdagingen.
2. Onze studie heeft het academische debat over de geschiktheid van het gebruik van westerse KM-modellen om *performance* te verbeteren in ontwikkelingslanden verbreed.
3. KM wordt in deze studie heroverwogen en staat nu FIs toe om HPO en HPO teams te creëren die recent, competatief en vitaal blijven. Zij zouden de nadruk moeten leggen op inhuren, ontwikkelen en het behoud van de juiste mensen.
4. KM zal afhankelijk zijn van de introductie van een nieuw bedrijfsmodel zoals het HPO-*framework*.
5. De relaties tussen het HPO-*framework*, KM en *high performance* zijn hard nodig voor FIs in Uganda.

Tenslotte doen wij de volgende vijf belangrijke aanbevelingen.

1. De omvang van de studie zou zo moeten worden verbreed dat het alle financiële services omvat, zodat de HPO-factoren gevalideerd kunnen worden voor de volledige reeks van industrieën, van proces-industrie tot service-industrie. De FIs kunnen starten met het gebruik van een incrementele benadering om een HPO-*framework*op te zetten op kleine schaal.
2. Managers dienen een organisatie-klimaat te stimuleren waarin verwerven, verspreiden en reageren op kennis wordt aangemoedigd. Toekomstig onderzoek zou een KM-model

moeten overwegen dat aangeboren en exogene kennis beheert, nodig voor duurzame HPOs in de FIs en andere sectoren.

3. Managers dienen gelegenheid in hun team te creëren om heldere, sterke argumenten voort te brengen voor tegengestelde gezichtspunten,en zorgvuldig hun eigen beweringen te formuleren. Open discussie en verschil van mening moet worden aangemoedigd zodat alle kanten van een probleem volledig kunnen worden onderzocht.
4. De beleidsmakers zouden een "knowledge culture" moeten vestigen en ingang doen vinden binnen de FIs, en de operationele effectiviteit van de interventies van de centrale bank moeten verhogen. Het voorgaande vereist dat de FIs stappen ondernemen om te veranderen naar instellingen waar kennis effectief kan worden vergaard en gebruikt voor doeleinden om de kwaliteit bij binnenkomst te verbeteren en om *high performance* in de sector te bereiken.
5. De FIsdienen erop gericht te zijn om concurrerend voordeelna te streven door het bouwen van een *high performance* cultuur, het creëren van een cultuur van continue verbetering en vernieuwend gebruik van *performance* management om organisatorische waarde toe te voegen. Ze dienen te bewijzen dat tijd en geld besparendzijn voor *performance* management, omdat het op die manier wordt ingebed in een cultuur van *high performance*.

Curriculum Vitae

Janatti Kyogabiirwe Bagorogoza was born on 28th August, 1962 in Mbarara district, Uganda. She had her secondary school education at Bweranyangi Girls Secondary School. She graduated with a Bachelor of Education degree and a Master of Education degree; both from Makerere University. Bagorogoza also completed a Post Graduate diploma in HRM and Fast class Master of Science degree (Msc), from the Uganda Management Institute. Since 1998, she has been working as a senior lecturer with Makerere University Business School in the Department of Human Resource Management, where she has been teaching several management-related courses. Moreover, she has done a great deal of consultancy work in the area of communication and management. Her current research interests lie in communication, knowledge management, and human resource management, performance management.

In 2008, Ms Bagorogoza received a scholarship from the Netherlands Organisation for International Co-operation in Higher Education (NUFFIC) to pursue a Ph.D. program in Human Resource Management from The Netherlands. She completed her Ph.D. coursework in 2009 and earned the Master of Philosophy degree from Maastricht School of Management (MSM) in 2010 after successfully defending her Ph.D. proposal. Ms. Bagorogoza then joined Tilburg Centre for Cognition and Communication in the Faculty of Humanities, (TiCC) Tilburg University, the Netherlands, to complete the rest of her Ph.D. program. Her PhD project entitled “Knowledge Management and High performance. The Financial Institutions Model for HPO” resulted in this thesis.

List of Publications

Bagorogoza, J.K., de Waal, A.A., van den Herik, H. J. & Van de Walle, B.A. (2013b). A Critical assessment of the high-performance framework in the Ugandan finance sector. *Botswana Journal of Business.* 6(1), 1-16.

Bagorogoza, J.K., de Waal, A.A., van den Herik, H. J. & Van de Walle, B.A. Honyenuga, B.Q. (2013). The HPO framework: Mediator of knowledge management and competitiveness in the Financial Services. *Paper was presented at the International Academy of African Business and Development (IAABD) Conference.* 14th – 18th, May, 2013, at GIMPA, Accra, Ghana. *Published in the Proceedings of the 14th Annual Conference©2013 IAABD.* Track 10(Human Resources, Management and Organisations).

Bagorogoza, J.K., de Waal, A.A., van den Herik, H. J. & Van de Walle, B.A. (2012a). The applicability of the high performance framework in Africa: The case of financial institutions in Uganda. *Paper presented at the International Conference on International Business* (ICIB 2012). 17-19th, May Thessalonika, Greece.

Bagorogoza, J.K., de Waal, A.A., van den Herik, H. J. & Van de Walle, B.A. (2012). Knowledge Management Initiatives supporting the creation of High Performance Organisations in Uganda. *Paper presented at the International Forum on Knowledge Assets Dynamics (IFKAD,*). 13-15th June, *2012,* Matera, Italy.

Bagorogoza, J.K., de Waal, A.A., van den Herik, H. J. & Van de Walle, B.A. (2011). Knowledge Management and High performance organisations in financial Institutions in Uganda. *Journal of Management Digest*. 6(3), 6(3), 165-178.

Bagorogoza, J.K., de Waal, A.A., van den Herik, H. J. & Van de Walle, B.A. (2011a). A critical assessment of the high-performance framework in the Ugandan Finance Sector. *Paper presented at the International management conference in Botswana, 12-15th,July.*

Bagorogoza, J.K., de Waal, A.A., van den Herik, H. J. & Van de Walle B.A. (2011). High Performance Organisations: the case of Financial Institutions in Uganda, *Paper presented at the Kenya International management (KIM) conference, 12-15th, September, 2011, Nairobi, Kenya*.

Bagorogoza, J.K., de Waal, A.A., van den Herik., H. J. & Van de Walle, B.A. (2011). Improving organisational performance through knowledge management: The case of financial institutions in Uganda. *Paper presented at Maastricht School of management Annual conference 11-12th November, 2011.*

Bagorogoza, J.K. & de Waal, A.A. (2010). The role of knowledge management in creating and sustaining HPOs: the case of financial institutions in Uganda, *World Journal of Enterpreneurship, Management and Sustainable Development,* 6(4), 307-324.

Bagorogoza, J.K. & de Waal, A.A. (2010). Towards a knowledge management model for high performance enhancing the high performance framework. Case of financial institutions in Uganda. *The paper was presented at IAABD International Conference in Lagos, Nigeria,* 5th-7th May, 2010, pg. 715-722, and was published in the *Proceedings of the 11th Annual Conference©2010 IAABD.*

Special Acknowledgement

Writing the acknowledgement is always the best part of any publication. Many people have supported me, and I relish the opportunity to thank them. This thesis is the result of my Ph.D. research project at the Tilburg center for Cognition and Communication (TiCC), Tilburg University. I am grateful to the Almighty God for all His guidance and His wonderful plans by which I was able to perform this study. Furthermore, I learned many things about life by going through feelings of happiness and sadness during my loneliness in Maastricht, the Netherlands

Moreover, I would like to thank the staff of Maastricht School of Management (MSM) for their continuous support throughout my study. Special thanks go to Mr. Patrick Mans, Sandra Kolkman, and Rocco Muhlenberg (Research Operations), Anna Pirson-Orru (Career Center), Martijn Schols and Rogers (IT Center), Jos Linssen (Finance Center), Marlene Nauts (Travel Office), Arsenio Kranenburg (Building, Catering & Meeting Services), and Iris Weijenberg, and Mirjam Coolen, (Information Center). I also acknowledge the encouragement I received from my doctoral colleagues, especially, Agus Gunawan, Priyankar, Hoang Thanh Nguyen, Terezia Gunawan, Ben Honyenunga, Mohammed Awlaqi, Esther Mbise, Angella Mwenda. Maruf, Nina Septrina, Abdalla Gorah, and Sen Zheng. Those nice moments and laughter we had together in our offices always made the heavy load bearable.

Then, I wish to acknowledge the support I received from the staff at Tilburg University more specifically Joke and Eva. In a special way, I thank all those whose names I have not mentioned here but who have contributed in one way or another to making this dream come true.

A special acknowledgement to MUBS my employer, for the education opportunities I received over the last years, resulting in a permanent extension of my knowledge. The technical support received from Prof. J. C. Munene, Ntayi Joseph, Moya Musa, Kamukama Nixon, Drs: Bagire Vincent, Mafabi Sam, Orobia Laura, Kikoma Julius, Grace Kibanja, Nabatanzi Annet, and Kakooza Michael. In the same spirit I would also like to thank Ms; Byarugaba Jolly, Tumwine Sulait, Sentrine, Duncan, Nakatee Marium, Mector, Olupot, and Nakyanja Florence. To all my colleagues in the HR department I am humbled by your moral and physical support given to me to complete this dissertation. Although I do not list you all individually, to each and every one I am sincerely grateful for your contribution. Be blessed by God almighty.

SIKS Dissertation Series

1998

1. Johan van den Akker (CWI[20])*DEGAS - An Active, Temporal Database of Autonomous Objects*
2. Floris Wiesman (UM)*Information Retrieval by Graphically Browsing Meta-Information*
3. Ans Steuten (TUD)*A Contribution to the Linguistic Analysis of Business Conversations within the Language/Action Perspective*
4. Dennis Breuker (UM)*Memory versus Search in Games*
5. E.W.Oskamp (RUL)*Computerondersteuning bij Straftoemeting*

1999

1. Mark Sloof (VU) *Physiology of Quality Change Modelling; Automated modelling of Quality Change of Agricultural Products*
2. Rob Potharst (EUR) *Classification using decision trees and neural nets*
3. Don Beal (UM) *The Nature of Minimax Search*
4. Jacques Penders (UM) *The practical Art of Moving Physical Objects*
5. Aldo de Moor (KUB) *Empowering Communities: A Method for the Legitimate User-Driven Specification of Network Information Systems*
6. Niek J.E. Wijngaards (VU) *Re-design of compositional systems*
7. David Spelt (UT) *Verification support for object database design*
8. Jacques H.J. Lenting (UM) *Informed Gambling: Conception and Analysis of a Multi-Agent Mechanism for Discrete Reallocation*

2000

1. Frank Niessink (VU) *Perspectives on Improving Software Maintenance*
2. Koen Holtman (TU/e) *Prototyping of CMS Storage Management*
3. Carolien M.T. Metselaar (UvA) *Sociaal-organisatorische gevolgen van kennistechnologie; een procesbenadering en actorperspectief.*
4. Geert de Haan (VU) *ETAG, A Formal Model of Competence Knowledge for User Interface Design*
5. Ruud van der Pol (UM) *Knowledge-based Query Formulation in Information Retrieval*
6. Rogier van Eijk (UU) *Programming Languages for Agent Communication*

20 Abbreviations: SIKS – Dutch Research School for Information and Knowledge Systems; CWI – Centrum voor Wiskunde en Informatica, Amsterdam; EUR – Erasmus Universiteit, Rotterdam; KUB – Katholieke Universiteit Brabant, Tilburg; KUN - Katholieke Universiteit Nijmegen; OU – Open Universiteit; RUL – Rijksuniversiteit Leiden; RUN – Radbourd Universiteit Nijmegen; TUD – Technische Universiteit Delft; TU/e - Technische Universiteit Eindhoven; UL – Universiteit Leiden; UM – Universiteit Maastricht; UT – Universiteit Twente, Enschede; UU – Universiteit Utrecht; UvA – Universiteit van Amsterdam; UvT – Universiteit van Tilburg; VU – Vrije Universiteit, Amsterdam.

7. Niels Peek (UU) *Decision-theoretic Planning of Clinical Patient Management*
8. Veerle Coup, (EUR) *Sensitivity Analyis of Decision-Theoretic Networks*
9. Florian Waas (CWI) *Principles of Probabilistic Query Optimization*
10. Niels Nes (CWI) *Image Database Management System Design Considerations, Algorithms and Architecture*
11. Jonas Karlsson (CWI) *Scalable Distributed Data Structures for Database Management*

2001

1. Silja Renooij (UU) *Qualitative Approaches to Quantifying Probabilistic Networks*
2. Koen Hindriks (UU) *Agent Programming Languages: Programming with Mental Models*
3. Maarten van Someren (UvA) *Learning as problem solving*
4. Evgueni Smirnov (UM) *Conjunctive and Disjunctive Version Spaces with Instance-Based Boundary Sets*
5. Jacco van Ossenbruggen (VU) *Processing Structured Hypermedia: A Matter of Style*
6. Martijn van Welie (VU) *Task-based User Interface Design*
7. Bastiaan Schonhage (VU) *Diva: Architectural Perspectives on Information Visualization*
8. Pascal van Eck (VU) *A Compositional Semantic Structure for Multi-Agent Systems Dynamics*
9. Pieter Jan 't Hoen (RUL) *Towards Distributed Development of Large Object-Oriented Models, Views of Packages as Classes*
10. Maarten Sierhuis (UvA) *Modeling and Simulating Work Practice BRAHMS: a multiagent modeling and simulation language for work practice analysis and design*
11. Tom M. van Engers (VUA) *Knowledge Management: The Role of Mental Models in Business Systems Design*

2002

1. Nico Lassing (VU) *Architecture-Level Modifiability Analysis*
2. Roelof van Zwol (UT) *Modelling and searching web-based document collections*
3. Henk Ernst Blok (UT) *Database Optimization Aspects for Information Retrieval*
4. Juan Roberto Castelo Valdueza (UU) *The Discrete Acyclic Digraph Markov Model in Data Mining*
5. Radu Serban (VU) *The Private Cyberspace Modeling Electronic Environments inhabited by Privacy-concerned Agents*
6. Laurens Mommers (UL) *Applied legal epistemology; Building a knowledge-based ontology of the legal domain*
7. Peter Boncz (CWI) *Monet: A Next-Generation DBMS Kernel For Query-Intensive Applications*
8. Jaap Gordijn (VU) *Value Based Requirements Engineering: Exploring Innovative E-Commerce Ideas*

9. Willem-Jan van den Heuvel (KUB) *Integrating Modern Business Applications with Objectified Legacy Systems*
10. Brian Sheppard (UM) *Towards Perfect Play of Scrabble*
11. Wouter C.A. Wijngaards (VU) *Agent Based Modelling of Dynamics: Biological and Organisational Applications*
12. Albrecht Schmidt (UvA) *Processing XML in Database Systems*
13. Hongjing Wu (TU/e) *A Reference Architecture for Adaptive Hypermedia Applications*
14. Wieke de Vries (UU) *Agent Interaction: Abstract Approaches to Modelling, Programming and Verifying Multi-Agent Systems*
15. Rik Eshuis (UT) *Semantics and Verification of UML Activity Diagrams for Workflow Modelling*
16. Pieter van Langen (VU) *The Anatomy of Design: Foundations, Models and Applications*
17. Stefan Manegold (UvA) *Understanding, Modeling, and Improving Main-Memory Database Performance*

2003

1. Heiner Stuckenschmidt (VU) *Ontology-Based Information Sharing in Weakly Structured Environments*
2. Jan Broersen (VU) *Modal Action Logics for Reasoning About Reactive Systems*
3. Martijn Schuemie (TUD) *Human-Computer Interaction and Presence in Virtual Reality Exposure Therapy*
4. Milan Petkovic (UT) *Content-Based Video Retrieval Supported by Database Technology*
5. Jos Lehmann (UvA) *Causation in Artificial Intelligence and Law - A modelling approach*
6. Boris van Schooten (UT) *Development and specification of virtual environments*
7. Machiel Jansen (UvA) *Formal Explorations of Knowledge Intensive Tasks*
8. Yongping Ran (UM) *Repair Based Scheduling*
9. Rens Kortmann (UM) *The resolution of visually guided behaviour*
10. Andreas Lincke (UvT) *Electronic Business Negotiation: Some experimental studies on the interaction between medium, innovation context and culture*
11. Simon Keizer (UT) *Reasoning under Uncertainty in Natural Language Dialogue using Bayesian Networks*
12. Roeland Ordelman (UT) *Dutch speech recognition in multimedia information retrieval*
13. Jeroen Donkers (UM) *Nosce Hostem - Searching with Opponent Models*
14. Stijn Hoppenbrouwers (KUN) *Freezing Language: Conceptualisation Processes across ICT-Supported Organisations*
15. Mathijs de Weerdt (TUD) *Plan Merging in Multi-Agent Systems*
16. Menzo Windhouwer (CWI) *Feature Grammar Systems - Incremental Maintenance of Indexes to Digital Media Warehouses*
17. David Jansen (UT) *Extensions of Statecharts with Probability, Time, and Stochastic Timing*

18. Levente Kocsis (UM) *Learning Search Decisions*

2004

1. Virginia Dignum (UU) *A Model for Organizational Interaction: Based on Agents, Founded in Logic*
2. Lai Xu (UvT) *Monitoring Multi-party Contracts for E-business*
3. Perry Groot (VU) *A Theoretical and Empirical Analysis of Approximation in Symbolic Problem Solving*
4. Chris van Aart (UvA) *Organizational Principles for Multi-Agent Architectures*
5. Viara Popova (EUR) *Knowledge discovery and monotonicity*
6. Bart-Jan Hommes (TUD) *The Evaluation of Business Process Modeling Techniques*
7. Elise Boltjes (UM) *Voorbeeldig onderwijs; voorbeeldgestuurd onderwijs, een opstap naar abstract denken, vooral voor meisjes*
8. Joop Verbeek (UM) *Politie en de Nieuwe Internationale Informatiemarkt, Grensregionale politile gegevensuitwisseling en digitale expertise*
9. Martin Caminada (VU) *For the Sake of the Argument; explorations into argument-based reasoning*
10. Suzanne Kabel (UvA) *Knowledge-rich indexing of learning-objects*
11. Michel Klein (VU) *Change Management for Distributed Ontologies*
12. The Duy Bui (UT) *Creating emotions and facial expressions for embodied agents*
13. Wojciech Jamroga (UT) *Using Multiple Models of Reality: On Agents who Know how to Play*
14. Paul Harrenstein (UU) *Logic in Conflict. Logical Explorations in Strategic Equilibrium*
15. Arno Knobbe (UU) *Multi-Relational Data Mining*
16. Federico Divina (VU) *Hybrid Genetic Relational Search for Inductive Learning*
17. Mark Winands (UM) *Informed Search in Complex Games*
18. Vania Bessa Machado (UvA) *Supporting the Construction of Qualitative Knowledge Models*
19. Thijs Westerveld (UT) *Using generative probabilistic models for multimedia retrieval*
20. Madelon Evers (Nyenrode) *Learning from Design: facilitating multidisciplinary design teams*

2005

1. Floor Verdenius (UvA) *Methodological Aspects of Designing Induction-Based Applications*
2. Erik van der Werf (UM) *AI techniques for the game of Go*
3. Franc Grootjen (RUN) *A Pragmatic Approach to the Conceptualisation of Language*
4. Nirvana Meratnia (UT) *Towards Database Support for Moving Object data*
5. Gabriel Infante-Lopez (UvA) *Two-Level Probabilistic Grammars for Natural Language Parsing*

6. Pieter Spronck (UM) *Adaptive Game AI*
7. Flavius Frasincar (TU/e) *Hypermedia Presentation Generation for Semantic Web Information Systems*
8. Richard Vdovjak (TU/e) *A Model-driven Approach for Building Distributed Ontology-based Web Applications*
9. Jeen Broekstra (VU) *Storage, Querying and Inferencing for Semantic Web Languages*
10. Anders Bouwer (UvA) *Explaining Behaviour: Using Qualitative Simulation in Interactive Learning Environments*
11. Elth Ogston (VU) *Agent Based Matchmaking and Clustering - A Decentralized Approach to Search*
12. Csaba Boer (EUR) *Distributed Simulation in Industry*
13. Fred Hamburg (UL) *Een Computermodel voor het Ondersteunen van Euthanasiebeslissingen*
14. Borys Omelayenko (VU) *Web-Service configuration on the Semantic Web; Exploring how semantics meets pragmatics*
15. Tibor Bosse (VU) *Analysis of the Dynamics of Cognitive Processes*
16. Joris Graaumans (UU) *Usability of XML Query Languages*
17. Boris Shishkov (TUD) *Software Specification Based on Re-usable Business Components*
18. Danielle Sent (UU) *Test-selection strategies for probabilistic networks*
19. Michel van Dartel (UM) *Situated Representation*
20. Cristina Coteanu (UL) *Cyber Consumer Law, State of the Art and Perspectives*
21. Wijnand Derks (UT) *Improving Concurrency and Recovery in Database Systems by Exploiting Application Semantics*

2006

1. Samuil Angelov (TU/e) *Foundations of B2B Electronic Contracting*
2. Cristina Chisalita (VU) *Contextual issues in the design and use of information technology in organizations*
3. Noor Christoph (UvA) *The role of metacognitive skills in learning to solve problems*
4. Marta Sabou (VU) *Building Web Service Ontologies*
5. Cees Pierik (UU) *Validation Techniques for Object-Oriented Proof Outlines*
6. Ziv Baida (VU) *Software-aided Service Bundling - Intelligent Methods & Tools for Graphical Service Modeling*
7. Marko Smiljanic (UT) *XML schema matching -- balancing efficiency and effectiveness by means of clustering*
8. Eelco Herder (UT) *Forward, Back and Home Again - Analyzing User Behavior on the Web*
9. Mohamed Wahdan (UM) *Automatic Formulation of the Auditor's Opinion*
10. Ronny Siebes (VU) *Semantic Routing in Peer-to-Peer Systems*
11. Joeri van Ruth (UT) *Flattening Queries over Nested Data Types*

12. Bert Bongers (VU) *Interactivation - Towards an e-cology of people, our technological environment, and the arts*
13. Henk-Jan Lebbink (UU) *Dialogue and Decision Games for Information Exchanging Agents*
14. Johan Hoorn (VU) *Software Requirements: Update, Upgrade, Redesign - towards a Theory of Requirements Change*
15. Rainer Malik (UU) *CONAN: Text Mining in the Biomedical Domain*
16. Carsten Riggelsen (UU) *Approximation Methods for Efficient Learning of Bayesian Networks*
17. Stacey Nagata (UU) *User Assistance for Multitasking with Interruptions on a Mobile Device*
18. Valentin Zhizhkun (UvA) *Graph transformation for Natural Language Processing*
19. Birna van Riemsdijk (UU) *Cognitive Agent Programming: A Semantic Approach*
20. Marina Velikova (UvT) *Monotone models for prediction in data mining*
21. Bas van Gils (RUN)*Aptness on the Web*
22. Paul de Vrieze (RUN) *Fundaments of Adaptive Personalisation*
23. Ion Juvina (UU) *Development of Cognitive Model for Navigating on the Web*
24. Laura Hollink (VU) *Semantic Annotation for Retrieval of Visual Resources*
25. Madalina Drugan (UU) *Conditional log-likelihood MDL and Evolutionary MCMC*
26. Vojkan Mihajlovic (UT) *Score Region Algebra: A Flexible Framework for Structured Information Retrieval*
27. Stefano Bocconi (CWI) *Vox Populi: generating video documentaries from semantically annotated media repositories*
28. Borkur Sigurbjornsson (UvA) *Focused Information Access using XML Element Retrieval*

2007

1. Kees Leune (UvT) *Access Control and Service-Oriented Architectures*
2. Wouter Teepe (RUG) *Reconciling Information Exchange and Confidentiality: A Formal Approach*
3. Peter Mika (VU) *Social Networks and the Semantic Web*
4. Jurriaan van Diggelen (UU) *Achieving Semantic Interoperability in Multi-agent Systems: a dialogue-based approach*
5. Bart Schermer (UL) *Software Agents, Surveillance, and the Right to Privacy: a Legislative Framework for Agent-enabled Surveillance*
6. Gilad Mishne (UvA) *Applied Text Analytics for Blogs*
7. Natasa Jovanovic (UT) *To Whom It May Concern - Addressee Identification in Face-to-Face Meetings*
8. Mark Hoogendoorn (VU) *Modeling of Change in Multi-Agent Organizations*
9. David Mobach (VU) *Agent-Based Mediated Service Negotiation*
10. Huib Aldewereld (UU) *Autonomy vs. Conformity: an Institutional Perspective on Norms and Protocols*

11. Natalia Stash (TU/e) *Incorporating Cognitive/Learning Styles in a General-Purpose Adaptive Hypermedia System*
12. Marcel van Gerven (RUN) *Bayesian Networks for Clinical Decision Support: A Rational Approach to Dynamic Decision-Making under Uncertainty*
13. Rutger Rienks (UT) *Meetings in Smart Environments; Implications of Progressing Technology*
14. Niek Bergboer (UM) *Context-Based Image Analysis*
15. Joyca Lacroix (UM) *NIM: a Situated Computational Memory Model*
16. Davide Grossi (UU) *Designing Invisible Handcuffs. Formal investigations in Institutions and Organizations for Multi-agent Systems*
17. Theodore Charitos (UU) *Reasoning with Dynamic Networks in Practice*
18. Bart Orriens (UvT) *On the development an management of adaptive business collaborations*
19. David Levy (UM) *Intimate relationships with artificial partners*
20. Slinger Jansen (UU) *Customer Configuration Updating in a Software Supply Network*
21. Karianne Vermaas (UU) *Fast diffusion and broadening use: A research on residential adoption and usage of broadband internet in the Netherlands between 2001 and 2005*
22. Zlatko Zlatev (UT) *Goal-oriented design of value and process models from patterns*
23. Peter Barna (TU/e) *Specification of Application Logic in Web Information Systems*
24. Georgina Ramírez Camps (CWI) *Structural Features in XML Retrieval*
25. Joost Schalken (VU) *Empirical Investigations in Software Process Improvement*

2008

1. Katalin Boer-Sorbán (EUR) *Agent-Based Simulation of Financial Markets: A modular, continuous-time approach*
2. Alexei Sharpanskykh (VU) *On Computer-Aided Methods for Modeling and Analysis of Organizations*
3. Vera Hollink (UvA) *Optimizing hierarchical menus: a usage-based approach*
4. Ander de Keijzer (UT) *Management of Uncertain Data - towards unattended integration*
5. Bela Mutschler (UT) *Modeling and simulating causal dependencies on process-aware information systems from a cost perspective*
6. Arjen Hommersom (RUN) *On the Application of Formal Methods to Clinical Guidelines, an Artificial Intelligence Perspective*
7. Peter van Rosmalen (OU) *Supporting the tutor in the design and support of adaptive e-learning*
8. Janneke Bolt (UU) *Bayesian Networks: Aspects of Approximate Inference*
9. Christof van Nimwegen (UU) *The paradox of the guided user: assistance can be counter-effective*
10. Wauter Bosma (UT) *Discourse oriented summarization*

11. Vera Kartseva (VU) *Designing Controls for Network Organizations: A Value-Based Approach*
12. Jozsef Farkas (RUN) *A Semiotically Oriented Cognitive Model of Knowledge Representation*
13. Caterina Carraciolo (UvA) *Topic Driven Access to Scientific Handbooks*
14. Arthur van Bunningen (UT) *Context-Aware Querying; Better Answers with Less Effort*
15. Martijn van Otterlo (UT) *The Logic of Adaptive Behavior: Knowledge Representation and Algorithms for the Markov Decision Process Framework in First-Order Domains*
16. Henriette van Vugt (VU) *Embodied agents from a user's perspective*
17. Martin Op 't Land (TUD) *Applying Architecture and Ontology to the Splitting and Allying of Enterprises*
18. Guido de Croon (UM) *Adaptive Active Vision*
19. Henning Rode (UT) *From Document to Entity Retrieval: Improving Precision and Performance of Focused Text Search*
20. Rex Arendsen (UvA) *Geen bericht, goed bericht. Een onderzoek naar de effecten van de introductie van elektronisch berichtenverkeer met de overheid op de administratieve lasten van bedrijven*
21. Krisztian Balog (UvA) *People Search in the Enterprise*
22. Henk Koning (UU) *Communication of IT-Architecture*
23. Stefan Visscher (UU) *Bayesian network models for the management of ventilator-associated pneumonia*
24. Zharko Aleksovski (VU) *Using background knowledge in ontology matching*
25. Geert Jonker (UU) *Efficient and Equitable Exchange in Air Traffic Management Plan Repair using Spender-signed Currency*
26. Marijn Huijbregts (UT) *Segmentation, Diarization and Speech Transcription: Surprise Data Unraveled*
27. Hubert Vogten (OU) *Design and Implementation Strategies for IMS Learning Design*
28. Ildiko Flesch (RUN) *On the Use of Independence Relations in Bayesian Networks*
29. Dennis Reidsma (UT) *Annotations and Subjective Machines - Of Annotators, Embodied Agents, Users, and Other Humans*
30. Wouter van Atteveldt (VU) *Semantic Network Analysis: Techniques for Extracting, Representing and Querying Media Content*
31. Loes Braun (UM) *Pro-Active Medical Information Retrieval*
32. Trung H. Bui (UT) *Toward Affective Dialogue Management using Partially Observable Markov Decision Processes*
33. Frank Terpstra (UvA) *Scientific Workflow Design; theoretical and practical issues*
34. Jeroen de Knijf (UU) *Studies in Frequent Tree Mining*
35. Ben Torben Nielsen (UvT) *Dendritic morphologies: function shapes structure*

2009

1. Rasa Jurgelenaite (RUN) *Symmetric Causal Independence Models*
2. Willem Robert van Hage (VU) *Evaluating Ontology-Alignment Techniques*
3. Hans Stol (UvT) *A Framework for Evidence-based Policy Making Using IT*
4. Josephine Nabukenya (RUN) *Improving the Quality of Organisational Policy Making using Collaboration Engineering*
5. Sietse Overbeek (RUN) *Bridging Supply and Demand for Knowledge Intensive Tasks - Based on Knowledge, Cognition, and Quality*
6. Muhammad Subianto (UU) *Understanding Classification*
7. Ronald Poppe (UT) *Discriminative Vision-Based Recovery and Recognition of Human Motion*
8. Volker Nannen (VU) *Evolutionary Agent-Based Policy Analysis in Dynamic Environments*
9. Benjamin Kanagwa (RUN) *Design, Discovery and Construction of Service-oriented Systems*
10. Jan Wielemaker (UvA) *Logic programming for knowledge-intensive interactive applications*
11. Alexander Boer (UvA) *Legal Theory, Sources of Law & the Semantic Web*
12. Peter Massuthe (TU/e), Humboldt-Universitaet zu Berlin) *Operating Guidelines for Services*
13. Steven de Jong (UM) *Fairness in Multi-Agent Systems*
14. Maksym Korotkiy (VU) *From ontology-enabled services to service-enabled ontologies (making ontologies work in e-science with ONTO-SOA)*
15. Rinke Hoekstra (UvA) *Ontology Representation - Design Patterns and Ontologies that Make Sense*
16. Fritz Reul (UvT) *New Architectures in Computer Chess*
17. Laurens van der Maaten (UvT) *Feature Extraction from Visual Data*
18. Fabian Groffen (CWI) *Armada, An Evolving Database System*
19. Valentin Robu (CWI) *Modeling Preferences, Strategic Reasoning and Collaboration in Agent-Mediated Electronic Markets*
20. Bob van der Vecht (UU) *Adjustable Autonomy: Controling Influences on Decision Making*
21. Stijn Vanderlooy (UM) *Ranking and Reliable Classification*
22. Pavel Serdyukov (UT) *Search For Expertise: Going beyond direct evidence*
23. Peter Hofgesang (VU) *Modelling Web Usage in a Changing Environment*
24. Annerieke Heuvelink (VU) *Cognitive Models for Training Simulations*
25. Alex van Ballegooij (CWI) *"RAM: Array Database Management through Relational Mapping"*
26. Fernando Koch (UU) *An Agent-Based Model for the Development of Intelligent Mobile Services*
27. Christian Glahn (OU) *Contextual Support of social Engagement and Reflection on the Web*

28. Sander Evers (UT) *Sensor Data Management with Probabilistic Models*
29. Stanislav Pokraev (UT) *Model-Driven Semantic Integration of Service-Oriented Applications*
30. Marcin Zukowski (CWI) *Balancing vectorized query execution with bandwidth-optimized storage*
31. Sofiya Katrenko (UvA) *A Closer Look at Learning Relations from Text*
32. Rik Farenhorst (VU) and Remco de Boer (VU) *Architectural Knowledge Management: Supporting Architects and Auditors*
33. Khiet Truong (UT) *How Does Real Affect Affect Affect Recognition In Speech?*
34. Inge van de Weerd (UU) *Advancing in Software Product Management: An Incremental Method Engineering Approach*
35. Wouter Koelewijn (UL) *Privacy en Politiegegevens; Over geautomatiseerde normatieve informatie-uitwisseling*
36. Marco Kalz (OUN) *Placement Support for Learners in Learning Networks*
37. Hendrik Drachsler (OUN) *Navigation Support for Learners in Informal Learning Networks*
38. Riina Vuorikari (OU) *Tags and self-organisation: a metadata ecology for learning resources in a multilingual context*
39. Christian Stahl (TU/e), Humboldt-Universitaet zu Berlin) *Service Substitution - A Behavioral Approach Based on Petri Nets*
40. Stephan Raaijmakers (UvT) *Multinomial Language Learning: Investigations into the Geometry of Language*
41. Igor Berezhnyy (UvT) *Digital Analysis of Paintings*
42. Toine Bogers (UvT) *Recommender Systems for Social Bookmarking*
43. Virginia Nunes Leal Franqueira (UT) *Finding Multi-step Attacks in Computer Networks using Heuristic Search and Mobile Ambients*
44. Roberto Santana Tapia (UT) *Assessing Business-IT Alignment in Networked Organizations*
45. Jilles Vreeken (UU) *Making Pattern Mining Useful*
46. Loredana Afanasiev (UvA) *Querying XML: Benchmarks and Recursion*

2010

1. Matthijs van Leeuwen (UU) *Patterns that Matter*
2. Ingo Wassink (UT) *Work flows in Life Science*
3. Joost Geurts (CWI) *A Document Engineering Model and Processing Framework for Multimedia documents*
4. Olga Kulyk (UT) *Do You Know What I Know? Situational Awareness of Co-located Teams in Multidisplay Environments*
5. Claudia Hauff (UT) *Predicting the Effectiveness of Queries and Retrieval Systems*
6. Sander Bakkes (UvT) *Rapid Adaptation of Video Game AI*
7. Wim Fikkert (UT) *Gesture interaction at a Distance*

8. Krzysztof Siewicz (UL) *Towards an Improved Regulatory Framework of Free Software. Protecting user freedoms in a world of software communities and eGovernments*
9. Hugo Kielman (UL) *A Politiele gegevensverwerking en Privacy, Naar een effectieve waarborging*
10. Rebecca Ong (UL) *Mobile Communication and Protection of Children*
11. Adriaan Ter Mors (TUD) *The world according to MARP: Multi-Agent Route Planning*
12. Susan van den Braak (UU) *Sensemaking software for crime analysis*
13. Gianluigi Folino (RUN) *High Performance Data Mining using Bio-inspired techniques*
14. Sander van Splunter (VU) *Automated Web Service Reconfiguration*
15. Lianne Bodenstaff (UT) *Managing Dependency Relations in Inter-Organizational Models*
16. Sicco Verwer (TUD) *Efficient Identification of Timed Automata, theory and practice*
17. Spyros Kotoulas (VU) *Scalable Discovery of Networked Resources: Algorithms, Infrastructure, Applications*
18. Charlotte Gerritsen (VU) *Caught in the Act: Investigating Crime by Agent-Based Simulation*
19. Henriette Cramer (UvA) *People's Responses to Autonomous and Adaptive Systems*
20. Ivo Swartjes (UT) *Whose Story Is It Anyway? How Improv Informs Agency and Authorship of Emergent Narrative*
21. Harold van Heerde (UT) *Privacy-aware data management by means of data degradation*
22. Michiel Hildebrand (CWI) *End-user Support for Access to\\ Heterogeneous Linked Data*
23. Bas Steunebrink (UU) *The Logical Structure of Emotions*
24. Dmytro Tykhonov (TUD) *Designing Generic and Efficient Negotiation Strategies*
25. Zulfiqar Ali Memon (VU) *Modelling Human-Awareness for Ambient Agents: A Human Mindreading Perspective*
26. Ying Zhang (CWI) *XRPC: Efficient Distributed Query Processing on Heterogeneous XQuery Engines*
27. Marten Voulon (UL) *Automatisch contracteren*
28. Arne Koopman (UU) *Characteristic Relational Patterns*
29. Stratos Idreos(CWI) *Database Cracking: Towards Auto-tuning Database Kernels*
30. Marieke van Erp (UvT) *Accessing Natural History - Discoveries in data cleaning, structuring, and retrieval*
31. Victor de Boer (UvA) *Ontology Enrichment from Heterogeneous Sources on the Web*
32. Marcel Hiel (UvT) *An Adaptive Service Oriented Architecture: Automatically solving Interoperability Problems*
33. Robin Aly (UT) *Modeling Representation Uncertainty in Concept-Based Multimedia Retrieval*
34. Teduh Dirgahayu (UT) *Interaction Design in Service Compositions*
35. Dolf Trieschnigg (UT) *Proof of Concept: Concept-based Biomedical Information Retrieval*
36. Jose Janssen (OU) *Paving the Way for Lifelong Learning; Facilitating competence development through a learning path specification*

37. Niels Lohmann (TU/e) *Correctness of services and their composition*
38. Dirk Fahland (TU/e) *From Scenarios to components*
39. Ghazanfar Farooq Siddiqui (VU) *Integrative modeling of emotions in virtual agents*
40. Mark van Assem (VU) *Converting and Integrating Vocabularies for the Semantic Web*
41. Guillaume Chaslot (UM) *Monte-Carlo Tree Search*
42. Sybren de Kinderen (VU) *Needs-driven service bundling in a multi-supplier setting - the computational e3-service approach*
43. Peter van Kranenburg (UU) *A Computational Approach to Content-Based Retrieval of Folk Song Melodies*
44. Pieter Bellekens (TU/e) *An Approach towards Context-sensitive and User-adapted Access to Heterogeneous Data Sources, Illustrated in the Television Domain*
45. Vasilios Andrikopoulos (UvT) *A theory and model for the evolution of software services*
46. Vincent Pijpers (VU) *e3alignment: Exploring Inter-Organizational Business-ICT Alignment*
47. Chen Li (UT) *Mining Process Model Variants: Challenges, Techniques, Examples*
48. Withdrawn
49. Jahn-Takeshi Saito (UM) *Solving difficult game positions*
50. Bouke Huurnink (UvA) *Search in Audiovisual Broadcast Archives*
51. Alia Khairia Amin (CWI) *Understanding and supporting information seeking tasks in multiple sources*
52. Peter-Paul van Maanen (VU) *Adaptive Support for Human-Computer Teams: Exploring the Use of Cognitive Models of Trust and Attention*
53. Edgar Meij (UvA) *Combining Concepts and Language Models for Information Access*

2011

1. Botond Cseke (RUN) *Variational Algorithms for Bayesian Inference in Latent Gaussian Models*
2. Nick Tinnemeier (UU) *Organizing Agent Organizations. Syntax and Operational Semantics of an Organization-Oriented Programming Language*
3. Jan Martijn van der Werf (TU/e) *Compositional Design and Verification of Component-Based Information Systems*
4. Hado van Hasselt (UU) *Insights in Reinforcement Learning; Formal analysis and empirical evaluation of temporal-difference learning algorithms*
5. Base van der Raadt (VU) *Enterprise Architecture Coming of Age - Increasing the Performance of an Emerging Discipline.*
6. Yiwen Wang (TU/e) *Semantically-Enhanced Recommendations in Cultural Heritage*
7. Yujia Cao (UT) *Multimodal Information Presentation for High Load Human Computer Interaction*
8. Nieske Vergunst (UU) *BDI-based Generation of Robust Task-Oriented Dialogues*
9. Tim de Jong (OU) *Contextualised Mobile Media for Learning*
10. Bart Bogaert (UvT) *Cloud Content Contention*

11. Dhaval Vyas (UT) *Designing for Awareness: An Experience-focused HCI Perspective*
12. Carmen Bratosin (TU/e) *Grid Architecture for Distributed Process Mining*
13. Xiaoyu Mao (UvT) *Airport under Control. Multiagent Scheduling for Airport Ground Handling*
14. Milan Lovric (EUR) *Behavioral Finance and Agent-Based Artificial Markets*
15. Marijn Koolen (UvA) *The Meaning of Structure: the Value of Link Evidence for Information Retrieval*
16. Maarten Schadd (UM) *Selective Search in Games of Different Complexity*
17. Jiyin He (UvA) *Exploring Topic Structure: Coherence, Diversity and Relatedness*
18. Mark Ponsen (UM) *Strategic Decision-Making in complex games*
19. Ellen Rusman (OU) *The Mind's Eye on Personal Profiles*
20. Qing Gu (VU) *Guiding service-oriented software engineering - A view-based approach*
21. Linda Terlouw (TUD) *Modularization and Specification of Service-Oriented Systems*
22. Junte Zhang (UvA) *System Evaluation of Archival Description and Access*
23. Wouter Weerkamp (UvA) *Finding People and their Utterances in Social Media*
24. Herwin van Welbergen (UT) *Behavior Generation for Interpersonal Coordination with Virtual Humans On Specifying, Scheduling and Realizing Multimodal Virtual Human Behavior*
25. Syed Waqar ul Qounain Jaffry (VU) *Analysis and Validation of Models for Trust Dynamics*
26. Matthijs Aart Pontier (VU) *Virtual Agents for Human Communication - Emotion Regulation and Involvement-Distance Trade-Offs in Embodied Conversational Agents and Robots*
27. Aniel Bhulai (VU) *Dynamic website optimization through autonomous management of design patterns*
28. Rianne Kaptein(UvA) *Effective Focused Retrieval by Exploiting Query Context and Document Structure*
29. Faisal Kamiran (TU/e) *Discrimination-aware Classification*
30. Egon van den Broek (UT) *Affective Signal Processing (ASP): Unraveling the mystery of emotions*
31. Ludo Waltman (EUR) *Computational and Game-Theoretic Approaches for Modeling Bounded Rationality*
32. Nees-Jan van Eck (EUR) *Methodological Advances in Bibliometric Mapping of Science*
33. Tom van der Weide (UU) *Arguing to Motivate Decisions*
34. Paolo Turrini (UU) *Strategic Reasoning in Interdependence: Logical and Game-theoretical Investigations*
35. Maaike Harbers (UU) *Explaining Agent Behavior in Virtual Training*
36. Erik van der Spek (UU) *Experiments in serious game design: a cognitive approach*
37. Adriana Burlutiu (RUN) *Machine Learning for Pairwise Data, Applications for Preference Learning and Supervised Network Inference*
38. Nyree Lemmens (UM) *Bee-inspired Distributed Optimization*

39. Joost Westra (UU) *Organizing Adaptation using Agents in Serious Games*
40. Viktor Clerc (VU) *Architectural Knowledge Management in Global Software Development*
41. Luan Ibraimi (UT) *Cryptographically Enforced Distributed Data Access Control*
42. Michal Sindlar (UU) *Explaining Behavior through Mental State Attribution*
43. Henk van der Schuur (UU) *Process Improvement through Software Operation Knowledge*
44. Boris Reuderink (UT) *Robust Brain-Computer Interfaces*
45. Herman Stehouwer (UvT) *Statistical Language Models for Alternative Sequence Selection*
46. Beibei Hu (TUD) *Towards Contextualized Information Delivery: A Rule-based Architecture for the Domain of Mobile Police Work*
47. Azizi Bin Ab Aziz(VU) *Exploring Computational Models for Intelligent Support of Persons with Depression*
48. Mark Ter Maat (UT) *Response Selection and Turn-taking for a Sensitive Artificial Listening Agent*
49. Andreea Niculescu (UT) *Conversational interfaces for task-oriented spoken dialogues: design aspects influencing interaction quality*

2012

1. Terry Kakeeto (UvT) *Relationship Marketing for SMEs in Uganda*
2. Muhammad Umair (VU) *Adaptivity, emotion, and Rationality in Human and Ambient Agent Models*
3. Adam Vanya (VU) *Supporting Architecture Evolution by Mining Software Repositories*
4. Jurriaan Souer (UU) *Development of Content Management System-based Web Applications*
5. Marijn Plomp (UU) *Maturing Interorganisational Information Systems*
6. Wolfgang Reinhardt (OU) *Awareness Support for Knowledge Workers in Research Networks*
7. Rianne van Lambalgen (VU) *When the Going Gets Tough: Exploring Agent-based Models of Human Performance under Demanding Conditions*
8. Gerben de Vries (UvA) *Kernel Methods for Vessel Trajectories*
9. Ricardo Neisse (UT) *Trust and Privacy Management Support for Context-Aware Service Platforms*
10. David Smits (TU/e) *Towards a Generic Distributed Adaptive Hypermedia Environment*
11. J.C.B. Rantham Prabhakara (TU/e) *Process Mining in the Large: Preprocessing, Discovery, and Diagnostics*
12. Kees van der Sluijs (TU/e) *Model Driven Design and Data Integration in Semantic Web Information Systems*
13. Suleman Shahid (UvT) *Fun and Face: Exploring non-verbal expressions of emotion during playful interactions*

14. Evgeny Knutov (TU/e) *Generic Adaptation Framework for Unifying Adaptive Web-based Systems*
15. Natalie van der Wal (VU) *Social Agents. Agent-Based Modelling of Integrated Internal and Social Dynamics of Cognitive and Affective Processes.*
16. Fiemke Both (VU) *Helping people by understanding them - Ambient Agents supporting task execution and depression treatment*
17. Amal Elgammal (UvT) *Towards a Comprehensive Framework for Business Process Compliance*
18. Eltjo Poort (VU) *Improving Solution Architecting Practices*
19. Helen Schonenberg (TU/e) *What's Next? Operational Support for Business Process Execution*
20. Ali Bahramisharif (RUN) *Covert Visual Spatial Attention, a Robust Paradigm for Brain-Computer Interfacing*
21. Roberto Cornacchia (TUD) *Querying Sparse Matrices for Information Retrieval*
22. Thijs Vis (UvT) *Intelligence, politie en veiligheidsdienst: verenigbare grootheden?*
23. Christian Muehl (UT) *Toward Affective Brain-Computer Interfaces: Exploring the Neurophysiology of Affect during Human Media Interaction*
24. Laurens van der Werff (UT) *Evaluation of Noisy Transcripts for Spoken Document Retrieval*
25. Silja Eckartz (UT) *Managing the Business Case Development in Inter-Organizational IT Projects: A Methodology and its Application*
26. Emile de Maat(UvA) *Making Sense of Legal Text*
27. Hayrettin Gürkök (UT) *Mind the Sheep! User Experience Evaluation & Brain-Computer Interface Games*
28. Nancy Pascall (UvT) *Engendering Technology Empowering Women*
29. Almer Tigelaar (UT)*Peer-to-Peer Information Retrieval*
30. Alina Pommeranz (TUD)*Designing Human-Centered Systems for Reflective Decision Making*
31. Emily Bagarukayo (RUN) *A Learning by Construction Approach for Higher Order Cognitive Skills Improvement, Building Capacity and Infrastructure*
32. Wietske Visser (TUD)*Qualitative multi-criteria preference representation and reasoning*
33. Rory Sie (OU) *Coalitions in Cooperation Networks (COCOON)*
34. Pavol Jancura (RUN)*Evolutionary analysis in PPI networks and applications*
35. Evert Haasdijk (VU)*Never Too Old To Learn - On-line Evolution of Controllers in Swarm- and Modular Robotics*
36. Denis Ssebugwawo (RUN)*Analysis and Evaluation of Collaborative Modeling Processes*
37. Agnes Nakakawa (RUN)*A Collaboration Process for Enterprise Architecture Creation*
38. Selmar Smit (VU) *Parameter Tuning and Scientific Testing in Evolutionary Algorithms*
39. Hassan Fatemi (UT) *Risk-aware design of value and coordination networks*
40. Agus Gunawan (UvT) *Information Access for SMEs in Indonesia*

41. Sebastian Kelle (OU) Game Design Patterns for Learning
42. Dominique Verpoorten (OU) *Reflection Amplifiers in self-regulated Learning*
43. Withdrawn
44. Anna Tordai (VU) *On Combining Alignment Techniques*
45. BenediktKratz (UvT) *A Model and Language for Business-aware Transactions*
46. Simon Carter (UVA) *Exploration and Exploitation of Multilingual Data for Statistical Machine Translation*
47. Manos Tsagkias (UVA) *Mining Social Media: Tracking Content and Predicting Behavior*
48. *Jorn Bakker (TUE) Handling Abrupt Changesin Evolving Time-series Data*
49. Michael Kaisers (UM) *Learning against Learning - Evolutionary dynamics of reinforcement learning algorithms in strategic interactions*
50. Steven van Kervel (TUD) *Ontologogy driven Enterprise Information Systems Engineering*
51. Jeroen de Jong (TUD) *Heuristics in Dynamic Scheduling; a practical framework with a case study in elevator dispatching*

2013

1. ViorelMilea (EUR) *News Analytics for Financial Decision Support*
2. EriettaLiarou (CWI) *MonetDB/DataCell: Leveraging the Column-store Database Technology for Efficient and Scalable Stream Processing*
3. SzymonKlarman (VU) *Reasoning with Contexts in Description Logics*
4. ChetanYadati(TUD) *Coordinating autonomous planning and scheduling*
5. Dulce Pumareja (UT) *Groupware Requirements Evolutions Patterns*
6. Romulo Goncalves(CWI) *The Data Cyclotron: Juggling Data and Queries for a Data Warehouse Audience*
7. Giel van Lankveld (UT) *Quantifying Individual Player Differences*
8. Robbert-Jan Merk(VU) *Making enemies: cognitive modeling for opponent agents in fighter pilot simulators*
9. Fabio Gori (RUN) *Metagenomic Data Analysis: Computational Methods and Applications*
10. JeewanieJayasingheArachchige(UvT) *A Unified Modeling Framework for Service Design*
11. EvangelosPournaras(TUD) *Multi-level Reconfigurable Self-organization in Overlay Services*
12. Marian Razavian(VU) *Knowledge-driven Migration to Services*
13. Mohammad Safiri(UT)*Service Tailoring: User-centric creation of integrated IT-based homecare services to support independent living of elderly*
14. JafarTanha (UVA)*Ensemble Approaches to Semi-Supervised Learning Learning*
15. Daniel Hennes (UM)Multiagent Learning - Dynamic Games and Applications
16. Eric Kok (UU)*Exploring the practical benefits of argumentation in multi-agent deliberation*
17. Koen Kok (VU)*The PowerMatcher: Smart Coordination for the Smart Electricity Grid*
18. JeroenJanssens (UvT)*Outlier Selection and One-Class Classification*

19. Renze Steenhuizen (TUD)*Coordinated Multi-Agent Planning andScheduling*
20. Katja Hofmann (UvA)*Fast and Reliable Online Learning to Rank for Information Retrieval*
21. Sander Wubben (UvT)*Text-to-text generation by monolingual machine translation*
22. Tom Claassen (RUN)*Causal Discovery and Logic*
23. Patricio de Alencar Silva(UvT)*Value Activity Monitoring*
24. HaithamBou Ammar (UM)*Automated Transfer in Reinforcement Learning*
25. Agnieszka Anna Latoszek-Berendsen (UM) *Intention-based Decision Support. A new way of representing and implementing clinical guidelines in a Decision Support System.*
26. AlirezaZarghami (UT) *Architectural Support for Dynamic Homecare Service Provisioning.*
27. Mohammad Huq (UT) *Inference-based Framework Managing Data Provenance*
28. Frans van der Sluis (UT)*When Complexity becomes Interesting: An Inquiry into the Information eXperience*
29. Iwan de Kok (UT)*Listening Heads*
30. Joyce Nakatumba (TUE)*Resource-Aware Business Process Management: Analysis and Support*
31. DinhKhoa Nguyen (UvT)*Blueprint Model and Language for Engineering Cloud Applications*
32. KamakshiRajagopal (OUN)*Networking For Learning; The role of Networking in a Lifelong Learner's Professional Development*
33. Qi Gao (TUD)*User Modeling and Personalization in the Microblogging Sphere*
34. KienTjin-Kam-Jet (UT)*Distributed Deep Web Search*
35. Abdallah El Ali (UvA)*Minimal Mobile Human Computer*
36. Than Lam Hoang (TUe)*Pattern Mining in Data Streams*
37. Dirk Börner (OUN)*Ambient Learning Displays*
38. Eelco den Heijer (VU)*Autonomous Evolutionary Art*
39. Joop de Jong (TUD)*A Method for Enterprise Ontology based Design of Enterprise Information Systems*
40. Pim Nijssen (UM)*Monte-Carlo Tree Search for Multi-Player Games*
41. JochemLiem (UVA)*Supporting the Conceptual Modelling of Dynamic Systems: A Knowledge Engineering Perspective on Qualitative Reasoning*
42. Léon Planken (TUD)*Algorithms for Simple Temporal Reasoning*
43. Marc Bron (UVA)*Exploration and Contextualization through Interaction and Concepts*

2014

1. Nicola Barile (UU) *Studies in Learning Monotone Models from Data*
2. Fiona Tuliyano (RUN)*Combining System Dynamics with a Domain Modeling Method*
3. Sergio Raul Duarte Torres (UT) *Information Retrieval for Children: Search Behavior and Solutions*
4. Hanna Jochmann-Mannak (UT)*Websites for children: search strategies and interface design - Three studies on children's search performance and evaluation*

5. Jurriaan van Reijsen (UU) *Knowledge Perspectives on Advancing Dynamic Capability*
6. Damian Tamburri (VU)*Supporting Networked Software Development*
7. Arya Adriansyah (TUE) *Aligning Observed and Modeled Behavior*
8. Samur Araujo (TUD)*Data Integration over Distributed and Heterogeneous Data Endpoints*
9. Philip Jackson (UvT) *Toward Human-Level Artificial Intelligence: Representation and Computation of Meaning in Natural Language*
10. Ivan Salvador Razo Zapata (VU)*Service Value Networks*
11. Janneke van der Zwaan (TUD)*An Empathic Virtual Buddy for Social Support*
12. Willem van Willigen (VU)*Look Ma, No Hands: Aspects of Autonomous Vehicle Control*
13. Arlette van Wissen (VU)*Agent-Based Support for Behavior Change: Models and Applications in Health and Safety Domains*
14. Yangyang Shi (TUD)*Language Models With Meta-information*
15. Natalya Mogles (VU)*Agent-Based Analysis and Support of Human Functioning in Complex Socio-Technical Systems: Applications in Safety and Healthcare*
16. KrystynaMilian (VU)*Supporting Trial Recruitment and Design by Automatically Interpreting Eligibility Criteria*
17. Kathrin Dentler (VU) *Computing Healthcare Quality Indicators Automatically: Secondary Use of Patient Data and Semantic Interoperability*
18. MattijsGhijsen (VU)*Methods and Models for the Design and Study of Dynamic Agent Organizations*
19. Vincius Ramos (TUE)*Adaptive Hypermedia Courses: Qualitative and Quantitative Evaluation and Tool Support*
20. Mena Habib (UT)*Named Entity Extraction and Disambiguation for Informal Text: The Missing Link*
21. Kassidy Clark (TUD)*Negotiation and Monitoring in Open Environments*
22. MariekePeeters (UT)*Personalized Educational Games - Developing Agent-Supported Scenario-based Training*
23. EleftheriosSidirourgos (UvA/CWI) *Space Efficient Indexes for the Big Data Era*
24. DavideCeolin (VU)*Trusting Semi-structured Web Data*
25. MartijnLappenschaar (RUN)*New Network Models for the Analysis of Disease Interaction*
26. Tim Baarslag (TUD)*What to Bid and When to Stop*
27. Rui Jorge Almeida (EUR) *Conditional Density Models Integrating Fuzzy and Probabilistic Representations of Uncertainty*
28. Anna Chmielowiec (VU) *Decentralized k-Clique Matching*
29. JaapKabbedijk (UU) *Variability in Multi-Tenant Enterprise Software*
30. Peter de Kock (UvT) *Anticipating Criminal Behaviour*
31. Leo van Moergestel (UU)*Agent Technology in Agile Multiparallel Manufacturing and Product Support*
32. NaserAyat (UVA)*On Entity Resolution in Probabilistic Data*

33. TesfaTegegneAsfaw (RUN)*Service Discovery in eHealth*
34. Christina Manteli (VU)*The Effect of Governance in Global Software Development: AnalyzingTransactive Memory Systems*
35. Joost van Oijen (UU)*Cognitive Agents in Virtual Worlds: A Middleware Design Approach*
36. JoosBuijs (TUE)*Flexible Evolutionary Algorithms for Mining Structured Process Models*
37. MaralDadvar (UT)*Experts and Machines United Against Cyberbullying*
38. Danny Plass-Oude Bos (UT) *Making Brain-computer Interfaces Better: Improving Usability Through Post-processing*
39. JasminaMarić (UvT) *Web Communities, Immigration and Social Capital*
40. Walter Omona (RUN) *A Framework for Knowledge Management Using ICT in Higher Education*
41. Frederic Hogenboom (EUR) *Automated Detection of Financial Events in News Text*
42. Carsten Eijckhof (CWI/TUD) *Contextual Multidimensional Relevance Models*
43. Kevin Vlaanderen (UU) *Supporting Process Improvement using Method Increments*
44. Paulien Meesters (UvT) *Intelligent Blauw. Met als ondertitel: Intelligence-gestuurde politiezorg in gebiedsgebonden eenheden*
45. Birgit Schmitz (OUN) *Mobile Games for Learning: A Pattern-Based Approach*
46. Ke Tao (TUD) *Social Web Data Analytics: Relevance, Redundancy, Diversity*
47. Shangsong Liang (UVA) *Fusion and Diversification in Information Retrieval*

2015

1. Niels Netten (UvA) *Machine Learning for Relevance of Information in Crisis Response*
2. FaizaBukhsh (UvT) *Smart auditing: Innovative Compliance Checking in Customs Controls*
3. Twan van Laarhoven (RUN) *Machine learning for network data*
4. Howard Spoelstra (OUN) *Collaborations in Open Learning Environments*
5. ChristophBösch (UT) *Cryptographically Enforced Search Pattern Hiding*
6. FaridehHeidari (TUD) *Business Process Quality Computation – Computing Non-Functional Requirements to Improve Business Processes*
7. Maria-HendrikePeetz (UvA) *Time-Aware Online Reputation Analysis*
8. Jie Jiang (TUD) *Organizational Compliance: An agent-based model for designing and evaluating organizational interactions*
9. Randy Klaassen (UT) *HCI Perspectives on Behavior Change Support Systems*
10. Henry Hermans (OUN) *OpenU: design of an integrated system to support lifelong learning*
11. Yongming Luo (TUE) *Designing algorithms for big graph datasets: A study of computing bisimulation and joins*
12. Julie M. Birkholz (VU) *Modi Operandi of Social Network Dynamics: The Effect of Context on Scientific Collaboration Networks*
13. Giuseppe Procaccianti (VU) *Energy-Efficient Software*
14. Bart van Straalen (UT) *A cognitive approach to modeling bad news conversations*

15. Klaas Andries de Graaf (VU) *Ontology-based Software Architecture Documentation*
16. Changyun Wei (UT) *Cognitive Coordination for cooperative Multi-Robot Teamwork*
17. André van Cleeff (UT) *Physical and Digital Security Mechanisms: Properties, Combinations and Trade-offs*
18. Holger Pirk (CWI) *Waste Not, Want Not! – Managing Relational Data in Asymmetric Memories*
19. Bernardo Tabuenca (OUN) *Ubiquitous Technology for Lifelong Learners*
20. LoïsVanhée (UU) *Using Culture and Values to Support Flexible Coordination*
21. Sibren Fetter (OUN) *Using Peer-Support to Expand and Stabilize Online Learning*
22. Zhemin Zhu (UT) *Co-occurrence Rate Networks*
23. LuitGazendam (VU) *Cataloguer Support in Cultural Heritage*
24. Richard Berendsen (UVA) *Finding People, Papers, and Posts: Vertical Search Algorithms and Evaluation*
25. Steven Woudenberg (UU) *Bayesian Tools for Early Disease Detection.*
26. Alexander Hogenboom (EUR) *Sentiment Analysis of Text Guided by Semantics and Structure*
27. Sándor Héman (CWI) *Updating compressed column-stores.*
28. Janatti K. Bagorogoza. *Knowledge Management and High Performance. The Uganda Financial Institutions Model for HPO*

TiCC Ph.D. Series

1. PashieraBarkhuysen. *Audiovisual Prosody in Interaction.* Promotores: M.G.J. Swerts, E.J. Krahmer. Tilburg, 3 October 2008.
2. Ben Torben-Nielsen. *DendriticMorphology: FunctionShapesStructure.* Promotores: H.J. van den Herik, E.O. Postma. Co-promotor: K.P. Tuyls. Tilburg, 3 December 2008.
3. Hans Stol. *A Framework for Evidence-based Policy MakingUsing IT.* Promotor: H.J. van den Herik. Tilburg, 21 January 2009.
4. Jeroen Geertzen. *Dialogue Act Recognition and Prediction.*Promotor: H. Bunt. Co-promotor: J.M.B. Terken. Tilburg, 11 February 2009.
5. Sander Canisius. *Structured Prediction for Natural Language Processing.* Promotores: A.P.J. van den Bosch, W. Daelemans. Tilburg, 13 February 2009.
6. Fritz Reul. *New Architectures in Computer Chess.* Promotor: H.J. van den Herik.Co-promotor: J.W.H.M. Uiterwijk. Tilburg, 17 June 2009.
7. Laurens van der Maaten. *Feature Extractionfrom Visual Data.* Promotores: E.O. Postma, H.J. van den Herik. Co-promotor: A.G. Lange. Tilburg, 23 June 2009 (cum laude).
8. StephanRaaijmakers. *Multinomial Language Learning.*Promotores: W. Daelemans, A.P.J. van den Bosch. Tilburg, 1 December 2009.
9. Igor Berezhnoy. *Digital Analysis of Paintings.* Promotores: E.O. Postma, H.J. van den Herik. Tilburg, 7 December 2009.
10. ToineBogers. *Recommender Systems for Social Bookmarking.* Promotor: A.P.J. van den Bosch. Tilburg, 8 December 2009.
11. Sander Bakkes. *Rapid Adaptation of Video Game AI.* Promotor: H.J. van den Herik. Co-promotor: P. Spronck. Tilburg, 3 March 2010.
12. Maria Mos. *Complex Lexical Items.* Promotor: A.P.J. van den Bosch. Co-promotores: A. Vermeer, A. Backus. Tilburg, 12 May 2010 (in collaboration with the Department of Language and Culture Studies).
13. Marieke van Erp. *Accessing Natural History. Discoveries in data cleaning, structuring, and retrieval*. Promotor: A.P.J. van den Bosch. Co-promotor: P.K. Lendvai. Tilburg, 30 June 2010.
14. Edwin Commandeur.*Implicit Causality and Implicit Consequentiality in Language Comprehension*. Promotores: L.G.M. Noordman, W. Vonk. Co-promotor: R. Cozijn. Tilburg, 30 June 2010.
15. Bart Bogaert.*Cloud Content Contention*. Promotores: H.J. van den Herik, E.O. Postma. Tilburg, 30 March 2011.
16. Xiaoyu Mao.*Airport under Control.*Promotores: H.J. van den Herik, E.O. Postma. Co-promotores: N. Roos, A. Salden. Tilburg, 25 May 2011.
17. Olga Petukhova.*MultidimensionalDialogueModelling*. Promotor: H. Bunt. Tilburg, 1 September 2011.

18. Lisette Mol.*Language in the Hands.* Promotores: E.J. Krahmer, A.A. Maes, M.G.J. Swerts. Tilburg, 7 November 2011 (cum laude).
19. Herman Stehouwer. *Statistical Language Models for Alternative Sequence Selection*. Promotores: A.P.J. van den Bosch, H.J. van den Herik. Co-promotor: M.M. van Zaanen. Tilburg, 7 December 2011.
20. TerryKakeeto-Aelen.*Relationship Marketing for SMEs in Uganda*.Promotores: J. Chr. van Dalen, H.J. van den Herik. Co-promotor: B.A. Van deWalle. Tilburg, 1 February 2012.
21. Suleman Shahid. Fun & Face: Exploring non-verbal expressions of emotion during playful interactions. Promotores: E.J. Krahmer, M.G.J. Swerts. Tilburg, 25 May 2012.
22. Thijs Vis. *Intelligence, Politie en Veiligheidsdienst: Verenigbare Grootheden?* Promotores: T.A. de Roos, H.J. van den Herik, A.C.M. Spapens. Tilburg, 6 June 2012 (in collaboration with the Tilburg School of Law).
23. Nancy Pascall. *Engendering Technology Empowering Women.*Promotores: H.J. van den Herik, M. Diocaretz. Tilburg, 19 November 2012.
24. Agus Gunawan. *Information Access for SMEs in Indonesia*. Promotor: H.J. van den Herik. Co-promotores: M. Wahdan, B.A. Van deWalle. Tilburg, 19 December 2012.
25. Giel van Lankveld. *Quantifying Individual Player Differences.*Promotores: H.J. van den Herik, A.R. Arntz. Co-promotor: P. Spronck. Tilburg, 27 February 2013.
26. Sander Wubben. *Text-to-text Generation Using Monolingual Machine Translation.* Promotores: E.J. Krahmer, A.P.J. van den Bosch, H. Bunt. Tilburg, 5 June 2013.
27. Jeroen Janssens. *Outlier Selection and One-Class Classification*. Promotores: E.O. Postma, H.J. van den Herik. Tilburg, 11 June 2013.
28. Martijn Balsters. *Expression and Perception of Emotions: The Case of Depression, Sadness and Fear*. Promotores: E.J. Krahmer, M.G.J. Swerts, A.J.J.M. Vingerhoets. Tilburg, 25 June 2013.
29. Lisanne van Weelden. *Metaphor in GoodShape.*Promotor: A.A. Maes. Co-promotor: J. Schilperoord. Tilburg, 28 June 2013.
30. Ruud Koolen. *"Need I say More? On Overspecification in Definite Reference."* Promotores: E.J. Krahmer, M.G.J. Swerts. Tilburg, 20 September 2013.
31. J. Douglas Mastin. *Exploring Infant Engagement. Language Socialization and Vocabulary. Development: A Study of Rural and Urban Communities in Mozambique.* Promotor: A.A. Maes.Co-promotor: P. A. Vogt. Tilburg, 11 October 2013.
32. Philip C. Jackson. Jr. *Toward Human-Level Artificial Intelligence – Representation and Computation of Meaning in Natural Language.* Promotores: H.C. Bunt, W.P.M. Daelemans. Tilburg, 22 April 2014.
33. JorrigVogels. *Referential choices in language production: The Role of Accessibility.* Promotores: A.A. Maes, E.J. Krahmer. Tilburg, 23 April 2014.
34. Peter de Kock.*Anticipating Criminal Behaviour.*Promotores: H.J. van den Herik, J.C. Scholtes. Co-promotor: P. Spronck. Tilburg, 10 September 2014.
35. Constantijn Kaland. *Prosodic marking of semantic contrasts: do speakers adapt to ad-*

dressees? Promotores: M.G.J. Swerts, E.J. Krahmer.Tilburg, 1 October 2014.

36. Jasmina Marić. *Web Communities, Immigration and Social Capital.*Promotor: H.J. van den Herik. Co-promotores: R. Cozijn, M. Spotti. Tilburg, 18 November 2014.
37. Paulien Meesters*Intelligent Blauw*. Promotores: H.J. van den Herik, T.A. de Roos. Tilburg, 1 December 2014.
38. Mandy Visser, *Better use your head. How people learn to signal emotions in social contexts.* Promotores: M.G.J. Swerts, E.J. Krahmer.Tilburg, 10 June 2015.
39. Sterling Hutchinson.*How symbolic and embodied representations work in concert*. Promotores: M.M. Louwerse, E.O. Postma. Tilburg, 30 June 2015
40. MariekeHoetjes.*Talking hands. Reference in speech, gesture and sign.* Promotores: E.J. Krahmer, M.G.J. Swerts. Tilburg, 7 October 2015
41. Elisabeth Lubinga.*Stop HIV. Start talking? The effects of rhetorical figures in health messages on conversations among South African adolescents*. Promotores: A.A. Maes, C.J.M. Jansen. Tilburg, 16 October 2015.
42. Janatti K. Bagorogoza. *Knowledge Management and High Performance. The Uganda Financial Institutions Model for HPO*. Promotor: H.J. van den Herik. Co-promotores: A.A. de Waal, B.A. Van de Walle. Tilburg, 24 November 2015